SCIENTIA STELLARUM:

OR, THE

Starry Science

Expoſed in the Calculation of the

Planets Places,

BOTH IN

LONGITUDE and LATITUDE,

For any Time,

Paſt, Preſent, or to Come:

AS ALSO,

The Doctrine of Eclipſes and Places of the Fixed Stars:

All Performed from

New and Accurate TABLES,

Which are Grounded upon the Beſt and moſt Rational Obſervations of former Ages; And more particularly Adjuſted to the moſt Correct Obſervations of this Preſent Age: And are ſo Ordered and Diſpoſed, That the Planets Places are thereby Obtain'd with much leſs Time and Pains than by any yet Extant; and are Exhibited in a moſt Plain and Practicable Method, for the Benefit of Young CALCULATORS, as well as Others:

Being Added, As a

SUPPLEMENT

To the Preceding

BOOK of SURVEYING.

By JOHN WING, *Math.*

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CHAP. I.

Of the Equation of Time for the Difference of Meridians.

THE Radices of the Middle Motions in theſe Tables are accommodated to the laſt Day of the *Julian* Year, under the Meridian of the Ancient and Famous City of *LONDON*, the Metropolis of *Great Britain*, whoſe Longitude is 24 Degrees, 20 Minutes; That therefore theſe Tables may Serve all Parts of the Earth, I have added a Catalogue of moſt of the chiefeſt Cities in the World, whereby the Latitude and Difference of Meridians of any Place may be had from that of *London*, which is the Primary Meridian of theſe Tables.

I. Therefore if it be Required to Reduce the Time given under the Meridian of *London*, to ſome other Meridian, ſeek the place deſired in the Catalogue of Cities, and the Difference of Time there found, Add to, or Subſtract from, the Time of *London*, according as the Titles of Addition direct, for ſo will the Time be reduced to the Meridian of the other Place, as was required.

EXAMPLE. I.

Suppoſe the Time given of the Middle of the Moon's Eclipſe at *London*, be at 10 hours P. M. and it is required to Reduce the ſame to the Meridian of *Vraniburg*; Therefore I ſeek *Vraniburg* in the Catalogue, againſt which I find 52 Min. with the Letter A; therefore I conclude, that the middle of the ſaid Eclipſe was ſeen at *Vraniburg* at 10 Hours 52 Min. P.M.

II. If the Time given be under ſome other Meridian, it is then requiſite (that the middle Motions may aright be obtain'd) to reduce the ſame to the Meridian of *London*; Therefore ſeek the Place given in the Catalogue, and the Difference of Time there found, contrary to the Title, is to be Added or Subſtracted from the Time there given.

EXAMPLE. II.

Suppoſe the Middle of the ſame Eclipſe had been obſerved at *Vraniburg*, at 10 Hours, 52 Min. Now againſt *Vraniburg*, (as before) I find 52 Min. A. Therefore contrary to the Title, Subſtract 52 Min. and the Reſidue 10 Hours is the middle of the Eclipſe in the Meridian of *London*.

CHAP. II.

The Uſe of the Table of Logiſtical Logarithms in Aſtronomical Proportions.

MULTIPLICATION is perform'd by adding the Logiſtical Logarithms of the two Numbers, for the Sum is the Logiſtical Logarithm of the Product.

Diviſion is done by Subſtracting the Logiſtical Logarithm of the Diviſor, from the Logiſtical Logarithm of the Dividend, and the Remainder is the Logiſtical Logarithm of the Quotient.

But in theſe Tables, a ſimple Multiplication or Diviſion is ſeldom required, but as it concerns the Rule of Proportion; hence for the moſt part we uſe a tacit Addition, or Subduction, of the Logarithm of an Integer, which is 1000000, which is the Radius, the Reſult being the Fourth Proportional.

I. EXAM-

I. Example *of Division.*

If 27 M. 36 S. give 1 D. or 60 M. what will 7 M. 20 S. give.

Divide { 7'-----20''-----LL------908715 } Subſtract.
{ 27------36------LL------966276 }

Quot. 15------57------LL------942439 Difference.

II. Example *of Multiplication.*

If 1 D. or 60 M. give 5 M. 29 S. what will 19 M. 50 S. give.

Multiply { 5' ----29'' ---LL------896089 } Add.
{ 19------50-----LL------951924 }

Product 1------49----LL------848013 Sum.

The like may be uſed in Time alſo by uſing the Figures of Time in the Top of the Table, ſtanding againſt T. H. But to make all plain, I have added Examples in all the material Caſes, as followeth.

By the Logiſtical Logarithms.

I. To Reduce the Planets Places to any Hour and Minute of the Day, and to find the time of any Aſpect, as alſo their Ingreſſes into any of the Signs.

Let it be required to find the Sun's entrance into the firſt Point of *Aries* 1693.

The Sun enter'd ♈ that year ſometime on the 9th day; Hence,

The place of ☉ the 9th day at Noon, is--29 ° 36′ 58′′ ♓
The place of ☉ the 10th day at Noon, is-- 0 36 22 ♈

LL---999563-----Sun's Diurnal Motion--- 0 59 24
LL---958420--------Diurnal Exceſs.------- 0 23 2

LL---957983--- Sun entred ♈, *Mar.* 9. 9 h. 7′ 15′ P. M.

Note, That the Diurnal Exceſs is found by Subſtracting the Sun's place the 9th Day, from 00 ° 00′ 00′′ ♈.

II. To Reduce the place of a Planet to any Hour and Minute of the Day.

Let it be required, to find the place of *Mars* the firſt Day of *June* for the paſt year 1693. at 10 h. 25 min. P. M.

The

The Determination.

Place of ♂ the 2d day at Noon.	4 °	46′	00″	♉
Place of ♂ the 1ſt day at Noon.	4	2	00	♉
Diurnal Motion of ♂	0	44	00–986530	
Time Afternoon, 10 h. 25′.			963751	
Gives 19′ 6″ to be added to ♂'s place the 1ſt Day.			950281	

Hence the place of ♂ the 1ſt day, at 10 h. 25′ P. M. is 4 ° 21′ 6″ ♉.

III. Let it be required to find the Time of any Aſpect, as on the 1ſt day of *June* 1693. there happened □ of ♆ and ☽, to find the true time thereof obſerve the following Work.

	☽ °	′	♆ °	′		°	′
Jupiter and *Moon*'s Place 1 Day-	22 ♍	7	0 ♌	19	☽ pl. 1ſt d. at N.	22	7♍
2 Day-	6 ♎	12	0 ♌	32	♆ pl. 1ſt d. at N.	0	19♌
Moon's Diur. Motion	14	5	0	13	Diſt. ☽ & ♆ fr. □	8	12
Jupiter's Diur. Moti.	0	13					
Diurnal Exceſs - -	13	52					

Then by the Logiſtical Logarithms.

Diſtance Moon from the □ of ♆ is	8 °	12′	913566
Diurnal Exceſs	13	52	936382
True time ♆ and ☽'s □ is at 14 h. 11′ P. M.			977184

IV. To find the Proſthaphæreſis of the Sun or other Planet in the Ellipſis by the Table of Logiſtical Logarithms.

IV. Suppoſe the Anomaly be 1 S. 10 ° 20′ 15″ and the Proſthaphæreſis be required, then take the Proſthaphæreſis.

To 1 S. 10 ° which is	1 °	16′	49″
1 11	1	18	26
Difference		1	37

Then by the Logiſtical Logarithms.

LL- - - 1′	37″	- - -	843047
LL- - -20	15	- - -	952827
LL- - - 0	33	- - -	795874
Proſthaphæreſis cor. to 1 S. 10 ° is		1 °	16′ 49″.
Add		0	33
Proſthaphæreſis cor. to 1 S. 10 ° 20′ 15″. is		1	87 22

V. If

V. If the Sun in One Day move 58 M. 56 S. How much moves he in 17 H. 54 M.

The Solution.

LL- - -17	H. 54′	00″	- - - -	-987264
LL- - - 0	58	56	- -	-999221
LL- - - 0	43	57	- -	-986485

By Adding the two given Logarithms, makes the Logarithm of 986485, which is the Logiſt. Log. of 43 M. 57 S. and ſo much doth the Sun move in 17 H. 54 Min.

VI. How to find the Log. of a Planet's Curt Diſtance from the Sun, which I ſhall Illuſtrate in the Example of *Mars.*

Anomaly of *Mars,* is - - -9 S. 28 ° 12′ 33″

To $\left\{\begin{matrix}9\text{ S. }29\text{ D.}\\9\quad 28\end{matrix}\right\}$ anſwers the L. of ♂, $\left\{\begin{matrix}520436\\520382\end{matrix}\right.$

54 Had this Number exceeded 60, I ſhould have taken the next leſſer Number to it in the ſecond Column on the top of the Table of LL, and the Remainder on the Left Hand, and in the Angle of Meeting had been the LL ſought: But becauſe this number is under 60, I find it in the Left Hand Column, againſt which 54, ſtands the LL of 817909, to which add the LL of 12 M. 33 S. *viz.* 932049, and the Sum is 749658. Find this LL in the Table, and obſerve what Number ſtands over it in the ſecond Column on the Top, and in the Column of Motion on the Left Hand, which is 0 on the Top, and 11 in the Left Hand Column; which 11 added to 520382, (the LL anſwering to 9 S. 28 D.) and the Sum is 520393. the Curt Diſtance of ♂ from ⊙ as was required.

See the Example.

LL of 54 is - - -		-817609
LL of 12′ 33″ - - -		-932049
LL of - -11 520382	Add.	749658

520393 Log. Curt. Diſt. ♂ from ⊙.

There are a great many other Examples might be produced from theſe Logiſtical Logarithms; however, what other Uſe I ſhall make of them will be better done in the proper Places, eſpecially in the Calculation of Eclipſes, where they ſhall be further Exemplified.

CHAP.

CHAP. III.

Of the Refraction and Parallax of the Sun, Moon, and Stars.

BEfore we come to Treat of the Uſe of our Tables, I ſhall take Notice of that groſs Errour in all Authors relating to the Parallax and Refraction of the Sun, Moon, and Stars.

Firſt then; the Refraction limited by *Tycho*, is greater in the Sun and Moon than in the Stars, which is quite Repugnant to Reaſon, for the Affections of the Air is doubtleſs the ſame in all of them; and tho' the beſt Limitation that can be made here, and in the Regions Conterminate, is about 30 M. in the Horizon, yet the Rarity or Condenſation of the Air makes them more or leſs, which depends upon the Creſſitude thereof; and in thoſe Countries that are more Remote from the Sun, the Vapours of the Air muſt needs be more Condenſed, ſo conſequently augments the Refraction: ſo that the difference which *Tycho* Defined betwixt the Refraction of the Sun and Stars, ariſes from the Parallax of the Sun, which he made 3 M. which appears according to the Limitation here made, to be but 30 S. For he ſuppoſing the Sun to be lower then really it was, by making of it ſo great a Parallax, which he was forced to raiſe by Refraction above the Stars that have no Parallax; and this is the reaſon that he makes the Horizontal Refraction of the Sun and Moon to be 33 or 34 M. and the Stars 30 M. Hence it appears, That the Sun by a Refracted Ray is ſeen wholly above the Horizon, when really its upper Edge doth but juſt touch it, neither are the Sun, Moon, and Stars free from Refraction at 45 D. Elevation, (as the Correct Obſervations of the Indefatigable Mr. *Flamſteed* demonſtrates, from whom I received the Table of Refractions) as all or moſt Authors ſuppoſed, being at that height Refracted near a Minute, which none are free from, becauſe the Refraction is not quite extinct till it approach the Vertex.

CHAP.

CHAP. IV.

To calculate the true Place of the Sun from theſe Tables.

THE Obſervations I not only make uſe of, but have depended upon for the framing of theſe New Tables, are of a different Nature from *Tycho*'s; and tho' I am ſure of the Sun's Meridional Diſtance from the *Vertex* to ¼ of a Minute or 15″, yet I truſt not to that, ſince an Errour of 24″, either in the Height, or aſſum'd Refraction, will make a whole Minute's Errour in his Place; and therefore I make uſe of the times of the Tranſits of his Centre, and ſome fixed Star near the ſame Parallel over the Meridian, and the Star's Return; whereby the Star's Right Aſcenſion being known, the Sun's is given, and conſequently his Place, without conſideration of Refraction, Parallax, or the Latitude of the Place: The Stars Places being not the ſame with *Tycho*'s, whoſe Obſervations were faulty, by reaſon he wanted Glaſſes to apply to his Inſtruments, which were not found out till about 8 Years after his Deceaſe.

Here follows an Obſervation, by which I ſhall examine theſe new Solar Tables, made by Mr. *Flamſteed*, at his Majeſty's Obſervatory at *Greenwich*.

	D.	H.	′	″	
Anno 1690, *March*	13	0	3	51	☉ Centre Tranſit. the Merid.
	14	0	3	14	☉ Centre Tranſit. the Merid.
Procyon	14	7	9	22½	Tranſited the Meridian.
Regulus	14	9	37	40	Tranſited the Meridian.
Regulus	15	9	33	26	Tranſited the Meridian.
Difference			4	14	

Which ſubſtracted from 24 Hours, (a Day natural) leaveth the Length of the Syderal Day, 23 *h.* 55′ 46″, the Pendulum Clock told the ſame, and for further Confirmation was found the ſame the Night following. Hence the Sun's Right Aſcenſion in the Meridian, on the 14th Day of *March*, 1690, was 3 *gr.* 55′ 42″, and his Place, 4 *gr.* 16′ 56″ ♈, which how our Tables agree to, we ſhall here examine.

Firſt then, From the Tables of the Sun's middle Motion, collect the mean Motion and Anomaly, anſwering to the Year, Month, Day, Hour, Minute, and Second, (if occaſion be) which Sums added, is the mean Motion and Anomaly required.

Secondly, With the Sun's Anomaly, enter the Table of his *Proſthapharesis*, with the Sign on the Head, and the Degree deſcending on the Left-hand, if the Number thereof be under ſix Signs; But if it exceed ſix Signs, enter with the Sign at the Bottom, and the Degree Aſcending on the Right-hand, and in the

common Angle is the *Proſthaphæreſis* and Logarithmic Number thereto, only you muſt remember to take the proportional part, if need require, as is ſhewed in Chap. II. Rule IV.

Anno 1690 *March* 14 Day at 0 Ho. 3′ 51″ in the *Meridian* of *London*, the Sun was obſerved in 4° 16′ 56″ ♈.

Tempus datum.	Longit. ☉ S.	o.	′	″	Anom. ☉ S.	o.	′	″	
Anno 1690	9	20	23	9	6	13	8	11	
March 14 day	2	11	57	8	2	11	56	56	
Min. 3				7				7	
Sec. 51				2				2	Diff. from Obſervat.
The Sun's mean Motion.	0	2	20	26	8	25	5	16	0′ 48″
Proſthaphæreſis Add.		1	57	18		Logar.			
						499951			
The Sun's true place.	♈	4	17	44					

The middle motion in theſe Tables is ſtated from the beſt Obſervations of all Ages, wherein Obſervations were made, compared with this preſent Age: But the *Proſthaph.* of the Sun, there being little to be grounded on from former Obſervations, I have only limited from the Accurate Obſervations of this Age, which proves the Sun's greateſt Equation to be 1*gr.* 57′ 30″

CHAP. V.

To Calculate the true place of the Moon, from theſe Tables.

TO the time given find the Sun's true place as is taught in the laſt Chapter.

2. Collect the mean motion of the Moon, her *Anomaly* and *Node*, as in the Sun.

3. With the mean *Anomaly*, enter the Table Intitled *Proſthaphæreſis* ☽ in *Ellipſi*, and the Equation there found (according to the Title) being added, or Subſtracted, to or from the mean *Anomaly* and the place of the Moon, giveth her true *Anomaly* and place Equated.

4. From the Equated place of the Moon, Subſtract the Sun's true place, and the reſidue is the diſtance of the Moon from the Sun, which (in *Tabula Reflection.* &c.) gives the *Logarithm* of the Chord of Evection, and entering the ſame with their double diſtance, you have the Reflection which is to be applyed to the Equated *Anomaly*, that it may be correct.

5. To find the *Synodical Anomaly* Obſerve, that from the Conjunction and Oppoſition of the Sun and Moon to the Quadrature, the

the complement of their distance to a Quadrant, is to be added to the correct *Anomaly*. But from their Quadrature to Conjunction or Opposition, the Excess of their distance above a Quadrant, is to be Substracted from the correct *Anomaly*, and the sum or difference is the *Synodical Anomaly*.

16. From the *Logarithm* of the Chord of Evection, Substract the *Logar.* of the Moon's distance, and the residue is the *Logarithmic* Number, with which enter the Table entitled (*Tabula Evectionis Lunæ*) finding the *Log.* number on the head, and the *Synodical Anomaly* in the first Column on the Left-hand, if it be less than six Signs, or on the Right-hand if more, and in the common Angle you have the Evection with its title.

17. If the Reflection and Evection be both of one denomination, their Sum, (otherwise their difference) is the absolute Secondary Equation; which being apply'd to the place of the Moon first Equated, gives her true *Longitude* in her *Orb*.

EXAMPLE.

Anno 1690, *February* 19th Day at 17 Hours 3' 55" Mr. *Flamsteed* Observed the Moon's Central place to be in 2° 23' 36" ♌ with 4° 46' 10" *South* Latitude, and because the Observation was made at the Observatory at *Greenwich* (it being in the same Meridian with *London*) no other time need be inquired after.

Tempus datum	Longit. ☽ S	o	'	"	Anomal. ☽ S.	o	'	"	Node ☽ S	o	'	"
Anno 1690	9	22	33	00	1	11	20	00	0	0	8	00
February 19	9	28	49	00	9	23	15	00				
Ho. 17	0	9	20	00	0	9	15	16	0	2	38	00
Min. 3			1	39			1	38			2	15
Sec. 55				30				30	0	2	40	15
Middle Motion ☽	8	00	44	9	11	13	52	24	11	27	27	45
Prosthaph. Add		1	20	6		1	20	6	☽ Node			
Motion ☽ Equat.	8	2	4	15	11	15	12	30	Anom. Equat.			
Sun's place	11	12	8	12			13	56	Reflect. Add /			
Distance ☽ ☌ ☉	8	19	56	3	11	15	26	26	Anom. Corr.			
Double distance	5	9	52	6		10	3	52	Distance Add			
2d. Equation Add			24	36	11	25	30	18	Synod. Anom.			
Moon in her *Orb*	8	2	28	51								
					Logar. Chord. Ev.				223632			
Node ☽ Substr.	11	26	56	6	Logar. Distant.				362507			
Argument. Latit.	8	5	32	45	Numerus Logar.				861125			
Reduction Sub.			4	49	Reflect. Add				0°	13'	56"	
Ecliptic place ☽	8	2	24	2	Evect. Add				0	10	40	
Latit. ☽ *South*		3	47	59	2d Equat. Add				0	24	36	

The Moon's Latitude, and Reduction from her Orb to the Ecliptick, is found as followeth.

With the distance of the Moon from the Sun 8^s 19° 56′ 3″, I enter the Table entit'led *(Tabula Scrup. proportionalium & Æquationes Nodorum)* where I find the proportional Scruples 58′ 11″ and the Equation of Nodes 31′ 39″ Substract, which according to the Title, being Substracted from the equal Motion of the Node 11^s 27° 27′ 45″ leaveth the true place 11^s 26° 56′ 6″, which Substracted from the Moon's place in her Orb 8^s 2° 28′ 51″, leaveth the Argument of Latitude 8^s 5° 32′ 45″, which *(in Tabula Latitudinis Lunæ)* gives the Moon's Latitude 4° 33′ 00″, with the excess 15′ 28″ of which the proportional part is 14′ 59″, which added to the Latitude before found, produceth the Moon's true Latitude 4° 47′ 59″ South.

By the Argument of Latitude is found the Reduction 4′ 59″ to be Substracted, and therefore the true place of the Moon in the Ecliptic is 8^s 2° 24′ 2″, agreeing to 26″ in Longit. and 1′ 49″ Latitude.

CHAP VI.

To Calculate the Geocentric place of any of the Primary Planets both in Longitude, and Latitude.

FIrst, To find the Longitude of any of the Primary Planets, get first the Planet's Place from the Sun, in his *Ellipsis*, *(as* before directed in the Sun*)* which I here call his Ecliptic place*)* remembring to collect the *Node* and *Logarithm* of the Planet also.

2. Substract the *Node* of the Planet *(*First placing the Planet's Ecliptic place under the *Node)* from the Ecliptic place of the Planet, and the remainder is the Argument of Latitude.

3. In the superiour Planets ♄, ♃, ♂, Substract their Heliocentric, or Ecliptic place, from the place of the Sun, and the Remainder is the *Anomaly* of Commutation: but in the inferiour Planets ☿ and ♀, Substract the Sun's place from theirs, and the remainder is the *Anomaly* of Commutation.

4. To find the *Parallax* of the Earth's *Orb*, place the Log. of the Planet and Log. of the Sun one under another, substracting the greater Log. from the less *(*the Radius being first added*)* the remainder will be the Tangent of an Arch, to which must be added 45 Degrees, and to the Co-Tangent of the Sum, add the Tangent of half the *Anomaly* of the *Orb*, the Sum (substracting the Radius) is the Tang. of an Arch, which in the Superiour

periour Planets must be added to the said half *Anomaly* of Commutation; but in the Inferiour Planets, substracted from it, the sum or difference is the Planet's *Ellongation* from the Sun, then substracting the half Difference from the half *Anomaly* of Commutation, or *Orb*, the difference is the *Parallax* of the Earth's *Orb*.

5. If the *Anomaly* of Commutation be less than six Signs, the *Parallax* of the *Orb* is to be added to the Heliocentric Longitude or Ecliptic place of ♄, ♃, ♂, but in ♀ and ☿ it is to be added to the place of the Sun: But if the Commutation be more then six Signs, the *Parallax* of the *Orb* is to be substracted from the Ecliptic place of ♄, ♃, ♂, and in ♀ and ☿ Substracted from the Sun's place, and the Sum or difference is the true Geocentric Longitude of the Planet.

For the Latitude.

First with the Argument of Latitude, take out the *Orb* of the Planet from the Plane of the Ecliptic, in its respective Table, then to that number affix its Co-Tang. to which set down the Arith. Comp. of the Sine of Elongation, and also the Sine of the *Anomaly* of Commutation: These three numbers added into one sum (Substracting the Radius) is the Co-Tang. of the Lat. of the Planet.

EXAMPLE I.

Of ♃ both in Longitude and Latitude.

Anno, 1690. *May* 11 Day, at 20 Hours 13 Min. P. M. Mr. *John Flamsteed* Observed ♃ in 2°--29'--6'' ♈ with 1°--9'--30'' S. Lat.

Tempus datum	Longit. ♃ S.	o	'	''	Anomal. ♃ S.	o	'	''	Node ♃ S.	o	'	''	☊
Anno, 1690	11	13	1	00	5	3	12	00	3	7	15	00	Node
May 11 Day		10	54	00		10	54	00	11	22	24	22	Ecl.P.
Ho. 20			4	9			4	9	8	15	9	22	A.Lat
Min. 13				3				3					
									569698. Logar. ♃				
MeanMotion ♃	11	23	59	12	5	14	10	12	500624. Logar. ☉				
Prosthaph. Sub.		1	34	50									
					Tang. 930926				11°-31'-10'' Ad.45°				
Eclipt. place ♃	11	22	24	22	Co-T. 982046				56--31--10 Sum				
Sun's place	2	1	29	44	Tang. 983786				34--32--41 A.½ Orb.				
Anomal Com.	2	9	5	22	Tang. 965832				24--28--51 ½ Diff.				
Par. Orb. Add		10	3	50									
					Elongat. ♃ à ☉				59-- 1--32 Elongat.				
Longitude ♃	♈	2	28	12	Parallax. Add				10---3--50 P. E. Orb.				

For

For the Latitude of ☽.

Elongation ☽ *à* ☉	59	1	32	A. C.	006680
Anomaly of Commutation	69	5	22	S.	997041
Inclination Ecliptic.	1	19	10	*c. t.*	1163765
Latitude ☽ So. Ascend.	1	12	40	*c. t.*	1167486

Differ. in Longit. 0′ 54″
Differ. in Latit. 3 10

EXAMPLE II.

in ☿.

Anno 1631, *October* 28th Day at 7 Ho. 58′ *Manè*, *Gassendus* at *Paris*, Observed (by a *Telescope*) ☿ in the Sun's Disc, being towards the *North-East* part of the Sun's Body and the distance of their Centers Observed 4′ 15″. The time Reduced to the Meridian of *London*, is 7 Ho. 50′ *Manè*.

Tempus datum	Longit. ☿ S. ° ′ ″	Anomal. ☿ S. ° ′ ″	Node ☿ S. ° ′ ″	☿
Anno 1631	8 22 51 00	0 11 54 00	1 13 18 00	Node
Octob. 27 Day	4 27 43 00	4 27 42 00	1 14 39 12	Ecl. P.
19 Ho. 56′	3 22 55	3 22 55	1 21 12	A. Lat
Mean Motion ☿	1 23 56 55	5 12 58 55	1499511	L. ☉ R. Add
Prosthaph. Sub.	9 17 43		449190	Logar. ☿
Eclipt. place ☿	1 14 39 12	Tan. 1050321	72°-34′-24″	Ad. 45°
Sun's place	7 14 40 48	Tan. 971783	27-- 34--24	Sum
		Tan. 636454		
Anomal. Com.	5 29 58 24		0----0--48½	Co. Orb.
Parallax Add	24	Tang. 608237	0----0--24	Substr.
		Elongation or	0----0--24	Parallax
	7 14 41 12			

For the Latitude of ☿.

Elongation ☿ *à* ☉	0°	0′	24″	A. C.	392538
Comp. Anom. Orb.	0	1	36	S.	666269
Inclination	0	9	30	*c. t.*	1255854
Latitude ☿ *North*	0	2	34		1314661

Agreeing to the Observation of Gassendus.

CHAP.

CHAP. VII.

To find the time of the true Conjunction or Oppoſition of the Sun and Moon.

FIrſt find out (by the Epact) the Day of the New or full Moon for the Year and Month propoſed.

II. At the Noonſide of the day thus found, compute the true places of the Sun and Moon, (as is taught in the 4th and 5th Chapter) and divide their diſtance from Conjunction or Oppoſition, by the true Hourly Motion of the Moon from the Sun, and the Quotient Add or Subſtract (according as you find the Moon wanting or paſt ☌ or ☍) and you ſhall have the time of the ☌ or ☍ near the truth. At this time thus corrected, Calculate the true places of the Sun and Moon; and if they agree you have the equal time of the Conjunction or Oppoſition in reſpect of the Moon's Orb, but if there be ſome difference, divide the ſame again by the true Hourly Motion of the ☽ *á* ☉, as before, and ſo proceed till you find a concurrence.

EXAMPLE.

In the Year 1693, I would know what time in *January* the full Moon was, therefore to the Epact 22, I add the number of Months from *March*, which is 11 Incluſive, and the ſum is 33, from which taking 30, the remainder is 3, which ſubſtract from 30 and there remains 27 for the day of the New Moon in *December*, to which add the half *Syzygia* 14 Days 18 Ho. 22′, and the Sum (abating 30) is 11 Days 18 Ho. 22′ for the time of the Mean ☍ in *January* 1693, to which time I compute the places of the Sun and Moon, finding the Sun in 3° 5′ 40″ ♒; and the Moon in 4° 19′ 38″ ♌, their diſtance from ☍ 1° 13′ 58″, which I divide by 32′ 47″ the Hourly Motion of the ☽ *á* ☉, and the Quotient is 2 Ho. 15′ 22″, which being ſubſtracted from 11 Days 18 Ho. 22′ (the time before given, becauſe the Moon's place is greater then the Sun's) leaveth 11 Days 16 Ho. 6′ 38″, to which time I compute their places, finding their diſtance from ☍ 2′ 58″ which I again divide by the Hourly Motion ☽ *á* ☉, and the Quotient is 5′ 25″ to be Subſtracted (becauſe the Moon's place is yet greater than the Sun's) from 11 Days 16 Ho. 6′ 38″, and there remains 11 Days 16 Ho. 1′ 13′, to which time I again compute the places of the Luminaries, finding their diſtance from ☍ 9″, which divide as before, and the Quotient is 16″ to be Subſtracted from 11 Days 16 H. 1′ 13″ and the Remainder is 11ᵈ 6ʰ 0′ 57″, which is the middle time of the true ☍ reſpecting the Moon's Orb, at which time the Sun is in ♒ 2° 59′ 40″, and the Moon in ♌ 2° 59′ 40″.

III. For

III. For this time I find out the Anomaly of the Moon's Latitude, and thereby the Reduction, which divide by the Hourly Motion, and the Quotient (contrary to the Title of Reduction) apply to the time before found, so have you the true ☌ in respect of the Ecliptic.

EXAMPLE.

	S.	o	'	"
True place of the Moon	4	2	59	40
North Node Substract	10	1	28	50
Argument of Latitude	6	1	30	50
Reduction Substract				22
Time of Reduction Add				40
True ☌ respecting the Ecliptic.	11^d	16^h	1	37

IV. To the time here given apply the Equation to make it apparent.

	D.	H.	'	"
Time given	11	16	1	37
Æquation of time Substract			9	14
Apparent time of the true ☌	11	15	52	23

CHAP. VIII.

To Calculate the Eclipse of the Moon.

FIrst to know when the Moon will be Eclipsed, and when not; Therefore observe at the true ☌: If the true motion of Latitude be within 12 Degrees backward or forward of 6 or 12 Signs, there is a possibility of an Eclipse, otherways not.

Otherways, if at the time of the true ☌, the Moon's Latitude be less than the sum of the Semidiameters of the Moon and Earth's Shadow, there must be an Eclipse, else not.

EXAMPLE. I.

At the time of the true ☌ in *January* 1693, the true Motion of Latitude is only 1° 30' 50" above 6 Signs, which shews the necessity of an Eclipse.

EXAM-

EXAMPLE II.

At the time of the true ☌, the ſum of the Semidiameters is 58' 11", and the Latitude of the Moon 7' 52"; thus becauſe the Moon's Latitude is leſs than the ſaid ſum, it ſhews there will be an Eclipſe.

II. At the time of the true ☌ (with the mean *Anomalys* of the Sun and Moon) enter the Table entitled (*Tabula Horariorum Motum Semid. &c.*) and under the Titles *Semid.* ☉ *Semid.* ☽, *Hor. Mot.* &c. You have their apparent Semidiameters, Parallax of the ☽, &c. Then from the ſum of their Horizontal Parallaxes (the Sun's Parallax in the Horizon being ever 30") Subſtract the Sun's Semidiameter, and the reſidue is the apparent Semidiameter of the Earth's Shadow, in reſpect of the Moon's Tranſit.

EXAMPLE.

Sum of the Horizontal Parallaxes ☉ and ☽	58'	34"
Semidiameter of the Sun Sub.	16	29
Apparent Semidiameter Earth's Shadow	42	5

III. Add together the Semidiameters of ☽ and Earth's Shadow; and from their ſum, Subſtract the Moon's Latitude; the Remainder is the parts deficient.

EXAMPLE.

Semidiameter of the Moon	16'	6"
Semidiameter of the Shadow	42	5
Their Sum	58	11
Latitude ☽ Subſtract	7	52
Parts or Scruples deficient	53	19

IV. You may ſpeedily convert the Scruples deficient into Digits thus: From the Logiſt. Logarithm of the Scruples deficient, Sub. the Logiſtical Log. of the double of the Moon's Diameter, the remainder is the Logiſt. Log. of the Digits Eclipſed.

EXAMPLE.

Scruples deficient	0°	50'	19"----LL---992356
Double ☽ˢ Diameter	1	4	24-----LL-1003073
Digits Eclipſed	19	45	10-----LL--989283

Here is to be *Noted* that Lunar Eclipses are of three sorts.

1. *Partial*, when the Scruples Deficient are less than the Moon's Diameter.

2. *Total without Continuance*, when they are equal.

3. *Total with Continuance*, when the Scruples deficient are greater than the Moon's Diameter, and in these, the Digits Eclipsed are more than 12, which shews how far the Eclipse is over the body of the Moon.

V. Take the Logarithms of the sum and difference of the Semidiameters and Latitude of the Moon, and the half Sum of the two Logarithms shall be the Logarithm of the Scruples of Incidence or half duration.

EXAMPLE.

Sum of the Semidiameter in Seconds	3491″	
Latitude of the Moon in Seconds	472	
Sum	3963	3.59802
Difference	3019	3.47986
	Sum	7.07788
Scruples of Incidence 3459″ or 57′ 39″ ½ Sum		3.53894

VI. As the true hourly Motion of the ☽ *a* ☉, to 1 Hour or 60′; so the Scruples of Incidence, to the time of Incidence, which substracted from, and added to the time of the greatest Obscuration, gives the Beginning and End of the Eclipse.

EXAMPLE.

LL--of 57′ 39″ Rad. Add	1998265
LL--of 32 42	973640
LL--of 1 ho. 52′ 40″	1024625

Or dividing the Scruples of Incidence by the Hourly Motion, ☽ *a* ☉, gives the same.

With the Moon's true Latitude at the time of the true ☌, enter the Table entitled (*Distantia Veræ ☌ & ☌ a Maxima Observatione*) and the distance there found, divide by the hourly Motion ☽ *a* ☉; the Quotient being apply'd to the apparent time of the true ☌, gives the time of the greatest Obscuration or middle of the Eclipse.

EXAM-

EXAMPLE.

The Latitude of the Moon 7′ 52″, gives in the Table 4 7″, which divided by the hourly Motion, produceth 1′ 27″ in time, to be Substracted.

	H	′	″
Apparent time of the true ☌ respecting the Ecliptic	15	52	23
Interval Substract		1	27
Middle of the Eclipse, or greatest Obscuration	15	50	56
Time of Incidence Sub. and Add	1	52	40
Beginning of the Eclipse	13	58	16
The End of the Eclipse	17	43	36
Total Duration.	3	45	20

VIII. To know the continuence of total Darkness, take the difference of the Semidiameters instead of the Sum, and then work as before.

Hence the continuence of Total Darkness is found to be 48′ 52″

		H	′	″
Hence	The Beginning of the Eclipse	13	58	16
	The Beginning of Total Darkness	15	26	30
	The Total Obscuration or Middle	15	50	56
	The End of Total Darkness	16	15	22
	The End, or full recovery of Light	17	43	36

IX. To find the Latitude of the Moon in the beginning and end of the Eclipse: Add the Motion of the Sun, agreeing to the time of Incidence to the Scruples of Incidence, the sum whereof Substracted from the Argument of Latitude, at the beginning of the Eclipse, gives the Argument of the Latitude at the end thereof, by which you may find the true Latitude as before was taught.

EXAMPLE.

	S	o	′	″
Motion of ☉ agreeing to the time of Incidence	0	0	4	38
Scruples of Incidence			57	39
Sum	0	1	2	17
Argument of ☽s Latitude at the Middle	6	1	30	50
Argument of Latitude at Beginning	6	0	28	33
Argument of Latitude at End	6	2	33	7
Hence {Latitude ☽ at the Beginning So. Asc.			2	22
{Latitude ☽ at the End So. Asc.			13	20

CHAP. IX.

To Calculate the Eclipse of the Sun.

FIrst find out the true ☌ as was taught in the Moon's Eclipse, at which time add the Sum of the Semidiameters of the Sun and Moon, to the difference of their Horizontal Parallaxes, and if the Sum thereof exceed the true Latitude of the Moon, at that Instant, it shews the Sun will be Eclipsed in some part of the Earth, otherways not.

EXAMPLE.

At the time of the true ☌ *June* 12th Day in the Afternoon, Anno 1694.

	☌		
Sum of Semidiameters of ☉ and ☽ is	0	30	55
Differ. Horizontal Parallaxes ☉ and ☽ Add	0	52	40
Sum	1	23	35
True Latitude of the ☽ at that time.		14	6

Hence the Sum of the Semidiameters added to the Difference of their Horizontal Parallaxes, exceeds the true Latitude of the Moon; which shews the necessity of an Eclipse.

II. If at the time of the Visible ☌ the apparent Latitude of the Moon, shall be less than the Sum of the two Semidiameters, the Sun will suffer an Eclipse in that Place, else not.

EXAM-

EXAMPLE.

At the before mentioned Time, the

	°	′	″
Sum of the Semidiameters is	0	30	55
Visible Latitude is	0	24	55

Which proves the Sun's Eclipse in these parts of the World.

This being known proceed to the Calculation after this manner.

I. Find out the Midheaven, its Altitude, and Meridian Angle as followeth.

	S *d.*	D *h.*	′	″
The true time of the ☌ 1694, *June*	12	3	54	31
the true place of the Sun	♋	1	26	17
Excentric place of the Moon	♋	1	26	17
Mean Anomaly of the Sun	11	23	54	41
Mean Anomaly of the Moon		21	0	40
Argument of the Moon's Latitude	5	27	18	41
True Latitude of the Moon *North*			14	0
Hourly Motion of the Sun			2	2
Hourly Motion of the Moon			29	51
Hourly Motion ☽ *à* ☉			27	29
Reduction Add				38
Time of Reduction Subſtract			1	23
The true Ecliptic Conjunction *June*	12	3	55	54
Æquation of time Subſtract				29
Apparent time of the true ☌ *June*	12	3	55	25
Horizontal Parallax ☽ *à* ☉			58	40

II. Find out the Midheaven, its Altitude, and the Meridian Angle, at the Apparent time of the true ☌, 1694, *June* 12th Day 3 Ho. 55′ 25″.

EXAMPLE.

	S.	o.	′	
The Sun's place is	♋	1	26	
Time in Degrees		58	51	
Sun's Right Aſcenſion		91	34	
R. A. of the *Medium Cæli.*		150	25	
M. C. in the Ecliptic	♌	28	23	
Meridian Angle		69	40	
Declination of *M. C.*		12	5	*North.*
Altitude Equator at *London*		38	28	
Altitude of the *M. C.*		50	30	

III. Add

III. Add the Sine of the Meridian Angle to the Co-sine of the Altitude of the *M. C.* the Sum is the Co-sine of the Altitude of the *Nonageſſime* Degree.

EXAMPLE.

	°	′	
The Meridian Angle	69	40	*s*--9.97205
Altitude of *M. C.*	50	33	*cs*-9.80305
Altitude of *Nonageſ. gr.*	53	26	*cs*-9.77510

IV. Add the Co-sine of the Meridian Angle, to the Co-tangent of the Altitude of the *Medium Cæli*; the sum is the Tangent of the diſtance of the *Nonageſſime* Degree from the *Medium Cæli*, which add to the *M. C.* from *Capricorn* to *Cancer*, and Subſtract from *Cancer* to *Capricorn*, and you have the *Nonageſſime* Degree.

EXAMPLE.

	°	′	
The Meridian Angle	69	40	*cs*--9.54093
Altitude of the *M. C.*	50	33	*ct*--9.91533
Diſt. *M. C.* from *Nonageſ. gr.*	15	57	*t*--9.45626

	S.	o.	′	″
The Midheaven	4	28	23	00
Diſtance Subſtract	0	15	57	00
Nonageſ. gr. viz. 12° 26′ ♌	4	12	26	00
The Sun's place	3	1	26	17
Diſt. *á* ☉, from *Nonageſ. gr.* to the *Weſt*	1	10	59	43

V. Add together the Logiſtical Logarithm of the Horizontal Parallax of the Moon from the Sun, the Sine of the Altitude of the *Nonageſſime* Degree, and the Sine of the diſtance of the Sun from the *Nonageſſime* Degree; the Sum, Subſtracting the double Radius, is the Logiſtical Logar. of the Parallax in Longitude.

EXAMPLE.

	°	′	″	
Horizontal Parallax ☽ *á* ☉		52	40	--LL--9.94338
Altitude *Nonageſ. gr.*	53	26	00	--S---9.90480
Diſt. ☉ *à Nonageſ. gr.*	40	59	43	--S---9.81689
Parallax of Longitude		27	45	--LL--9.66507

Here

Here *Note*, That if the Sun's place be less than the *Nonagesime*, the Luminarie appears more *West* than the truth, but if his place be greater, then the Luminarie seems more *East*, according to the quantity of the Parallax of Latitude.

VI. Add the Logistical Logarithm of the Horizontal Parallax of ☽ *a* ☉, to the Co-sine of the Altitude of the *Nonagesime* Degree, the Sum is the Logistical Logarithm of the Parallax of Latitude.

EXAMPLE.

	°	′	″	
Horizontal Parallax ☽ *a* ☉		52	40	--LL---9.94338
Altitude *Nonages. gr.*	53	26	00	---*cs*----9.77507
Parallax of Latitude		31	22	--LL---9.71845

In the next place we shall shew how to find the visible Hourly Motion of the Moon from the Sun, to which end I shall deliver these following Rules.

VII. If the Eclipse happen in the Oriental Quadrant of the Signifier, and the Parallax of Longitude decrease, Substract the difference of the Parallax of Longitude in one hour (or any other time) from the true Motion of the Moon from the Sun, but if the Parallax of Longitude increase, add the said Difference.

VIII. If the Eclipse happen in the Occidental Quadrant, and the Parallax of Longitude decrease, add the difference of Parallaxes to the true Motion of the Moon from the Sun; otherways Substract the same, if the Parallax of Longitude Increase.

IX. If the Eclipse happen in the *Nonagesime* Degree, so that the former part fall in the Oriental Quadrant, and the latter in the Occidental, Substract the difference from the true Motion of the Moon from the Sun, and you shall have the visible Motion of the Moon from the Sun.

Note, That whensoever the Sun's place is greater than the *Nonagesime* Degree, the Eclipse happens in the Oriental Quadrant, but if less, in the Occidental.

As in our Example the Sun is in 1° 26′ 17″ ♋, and the *Nonagesime* Degree 12° 26′ ♌, therefore the Sun is in the Occidental Quadrant distant as before 40° 59′ 43″.

	H	′	″
To 1 hour following the true ☌, *viz.*	4	55	25
Parallax of Longit. according to the former doctrine		31	5
True hourly Motion ☉ *a* ☽		27	29
Difference Parallax Longitude Substr.		3	20
Visible hourly Motion ☉ *a* ☽		24	9
By which dividing the Parallax of Longitude at the time of the true ☌, giveth the Interval of the true and visible ☌ to be added	1	8	56
Hence the visible ☌ is *June* 12 day at	5	4	21

At

At which time the Parallax of Longit. is		31	26
Distance of the Sun and Moon at that time		31	26
Parallax of Latitude South		34	59
True Latitude ☽ No. Descending		10	46
Visible Latitude of the Moon South		24	13
Semidiameter of the Sun		16	1
Semidiameter of the Moon		14	54
Sum of the Semidiameters		30	55
From which taking the visible Latitude leaveth the Scruples deficient.		6	42
Which converted into Digits as (in the Moon's Eclipse, by using the Double of the Sun's Diameter) makes	1 2	30	26

X. For the Scruples of Incidence, Substract the Logistical Logar. of the sum of the Semidiameters of the Sun and Moon, from the Logistical Logarithm of the Visible Latitude of the Moon from the Sun, the Remainder seek in the Table of Sines, and to its Co-sine Add the Logistical Logarithm of the Sum of the Semidiameters; the sum shall be the Logistical Logar. of the Scruples of Incidence.

EXAMPLE.

	′	″	
Visible Latitude ☽ ☌ ☉	24	13	--LL--9.60596
Sum of the Semidiameters	30	55	--LL--9.71204
			s---9.89392
			c s---9.79354
Sum of the Semidiameters	30	55	--LL--9.71204
Scruples of Incidence	18	19	--LL--9.50558

XI. To 1 hour before the visible ☌, *viz.* 4^h 4′ 21″ we shall find (according to the former Doctrine) the Parallax of Longitude is 28′ 21″, so that the hourly difference of the Parallax of Longitude is 3′ 5″, which Substracted from the hourly Motion ☽ ☌ ☉ 27′ 29″, leaveth the visible hourly Motion 24′ 24″, by which dividing the Scruples of Incidence 19′ 13″, it gives the time of Incidence 47′ 15″.

Again, to 1 hour after the visible ☌, *viz.* 6^h 4′ 21′, the Parallax of Longitude is 32′ 19″ so that the hourly difference of Parallax is 0′ 53″, which Substract from the true hourly Motion 27′ 29″, and it leaves 26′ 36″, for the visible hourly Motion, by which dividing the Scruples of Incidence 19′ 13″, produceth the time of Repletion 43′ 20″; hence the duration of the Eclipse is 1^h 30′ 35″.

XII. In

XII. In the Table of the difference of the ☌ or ☍ from the Mid-Eclipſe or greateſt Obſcuration, the viſible Latitude at the time of the viſible ☌, giveth the Interval 2′ 7″, which divide by the viſible hourly Motion, following the viſible ☌, giveth the Interval 4′ 46″ to be Subſtracted; ſo that the greateſt Obſcuration is at 4^h 59′ 35″ *P. M.*

Hence,

	H	′	″	
The Beginning at London is at	4	12	20	}
The Middle or greateſt Obſcuration	4	59	35	} *P. M.*
The Viſible Conjunction	5	4	21	}
The End of the Eclipſe	5	42	55	}

XIII. To find the viſible Latitude of ☽ at the Beginning and End of this Solar Eclipſe. Firſt, for the Beginning, add to the Minutes of Incidence, the Motion of the Sun agreeing to the time of Incidence, and the Sum ſubſtract from the true Motion of Latitude at the true time of the viſible Conjunction; ſo have you the true Motion of Latitude at the Beginning, by which find the true Latitude, and at the ſame time find the Parallax of Latitude; by theſe (obſerving the former directions) is had the viſible Latitude.

EXAMPLE.

	S.	o.	′	″
The Scruples of Incidence			19	13
Motion of the ☉ to the time of Incidence			1	55
Sum Subſtract			21	8
Motion of Latitude at the viſible ☌	5	27	54	20
Motion of Latitude at the Beginning	5	27	33	12
Moon's true Latitude *North* Sub.			12	49
Parallax of Latitude			32	13
Viſible Latitude at the Beginning *South*			19	24

XIV. For the end, add to the Minutes of Incidence the Motion of the Sun agreeing to the time of Repletion, and the Sum add to the true Motion of Latitude at the time of the viſible ☌, ſo have you the true motion of Latitude at the end, by which proceed, as before, to find the viſible Latitude.

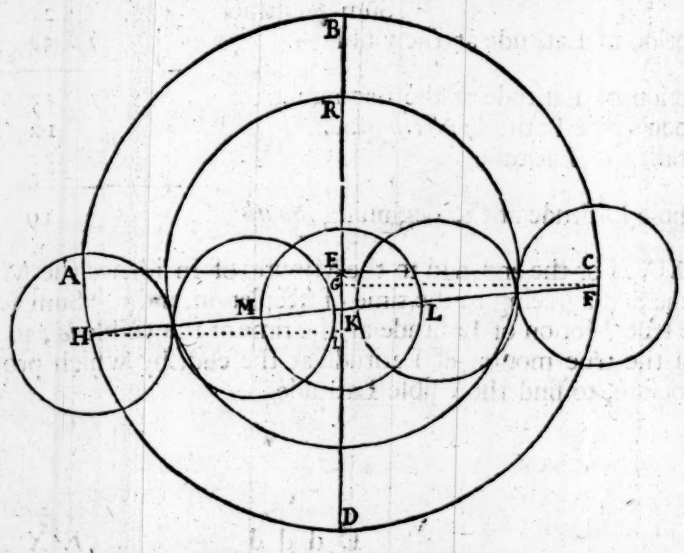
EXAMPLE.

	S	°	′	″
The Scruples of Incidence			19	13
Motion of ☉ to the time of Repletion			1	46
Sum Add			20	59
Motion of Latitude at the Visible ☌	5	27	54	20
Motion of Latitude at the End	5	28	15	19
Moon's true Latitude *North* Sub.			9	9
Parallax of Latitude			37	11
Visible Latitude *South*			28	2

CHAP. X.

To Delineate the Eclipses of the Sun and Moon.

I. FOR the Moon, draw the lines A C and B D to interfect one another at Right Angles in E, which point of Interfection is the Plane of the Ecliptic, where the Eclipse happens: upon which, as a Centre, draw the Peripherie A B C D, of the quantity of the sum of the Semidiameters of the Moon and Earth's Shadow (which may be done by a Scale of equal Parts) also to



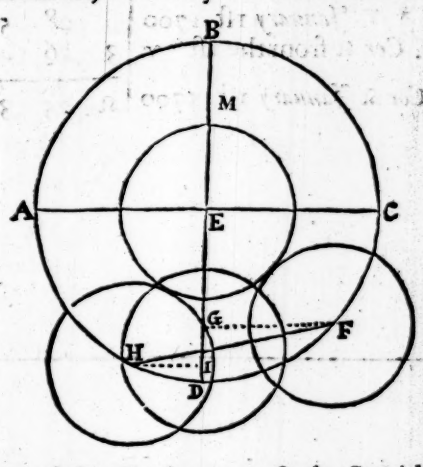
the quantity of the Semidiameter of the Earth's Shadow, draw upon the same Centre another Peripherie, then because the Moon's Eclipse begins on the East part of her Body, you must upon the West

West side of your Plane Note down the Latitude of the Moon, in the Arch B C D, which here represents the West part, which may thus be done. From E upon the line B D, prick off the Latitude at the beginning towards D, which terminates at G, from which draw a Parallel line to A C, as G F. For the End of the Eclipse proceed in like manner on the other side, and set off the Latitude from E to I, whose Parallel falls at H, then draw a line between F and H, which respects the way of the Moon during the Eclipse. Then draw the five equal Circles, having for the Radius the Semidiameter of the Moon. Then F shews the place of the Moon at the beginning of the Eclipse, L her place when she begins to be Totally darkned, K her place at the Middle, M her her place when she begins to recover her light, and H the end of the Eclipse.

EXAMPLE.

		′	″
Sum of the Semidiameters	E B	58	11
Semidiameter of the Shadow	E R	42	5
Initial Latitude of the Moon	E G	2	22
Final Latitude of the Moon	E I	13	20
Semidiameter of the Moon	R B	16	6

II. For the Eclipse of the Sun, which differs in nothing at all from this of the Moon, but only that instead of the Semidiameter of the Shadow of the Earth, you use the Semidiameter of the Sun, and the visible Latitude instead of the true: see what follows from the aforegoing Eclipse, by way of



EXAMPLE.

		′	″	
Sum of the Semidiameters	E B	30	55	
Semidiameter of the Sun	E M	16	1	
Initial visible Latitude	E G	19	24	*South*
Final visible Latitude	E I	28	2	
Semidiameter of the Moon	M B	14	54	

CHAP. XI.

To find the place of the Fixed Stars for any time given.

First, gather the Receſſion of the Equinoctial (which is equal to the diſtance of the firſt Star in the Catalogue from the firſt point of ♈) to which add the diſtance of the Star, whoſe Longitude is ſought: the diſtance of the ſaid Star is found by Subſtracting the place of the firſt * in the Catalogue, from the place of the propoſed Star there found; the ſum is the place of the Star required.

EXAMPLE.

I deſire to know the place of *Cor Leonis* the of 1ſt *January* 1700, to which end I gather the Receſſion of the Equinoctial after this following manner.

	S	o	'	"
Epocha 1681		28	44	00
Years add 19			15	59
Place 1ſt * ♈ *January* 1ſt 1700		28	59	59
Add Diſt. *Cor* ♌ from the 1ſt * ♈	3	26	40	00
Place of *Cor* ♌ *January* 1ſt. 1700	♌	25	39	59

A CATA-

A CATALOGUE of ſome of the moſt Eminent Cities and Towns in the *World*, with their Latitude, and difference of Meridians from *London*.

Names of the Cities.	Diff. Merid. H	'		Alt. Po. °	'
Alberdeen in *Scotland*	0	7	S	58	4
Alexandria in *Egypt*	2	20	A	30	58
Amſterdam in *Holland*	0	20	A	52	25
Antwerp in *Brabant*	0	17	A	51	12
Aracta in *Syria*	3	20	A	36	0
Athens in *Greece*	1	54	A	37	42
Babylon in *Chaldea*	3	10	A	35	0
Bedford in *England*	0	2	S	52	12
Berwick in *England*	0	6	S	55	50
Bethlem in *Judea*	2	48	A	31	50
Bononia in *Italy*	0	45	A	43	49
Briſtol in *England*	0	12	S	51	28
Calis in *France*	0	10	A	50	52
Calecut in *E. India*	5	52	A	11	30
Cambridge in *England*	0	1	A	52	17
Canterbury in *England*	0	4	A	51	25
Caſſels in *Heſſia*	0	39	A	51	19
Compoſtella in *Spain*	0	36	S	43	0
Conimbria in *Portugal*	0	33	S	40	15
Coventry in *England*	0	6	S	52	30
Derby in *England*	0	6	S	53	3
Dantzick in *Pruſſia*	1	14	A	54	23
Dublin in *Ireland*	0	27	S	53	11
Edenburgh in *Scotland*	0	10	S	57	6
Frankford upon *Meene*	0	35	A	50	2
Fruenburg in *Pruſſia*	1	28	A	54	22
Gloceſter in *England*	0	9	S	51	58
Ghent in *Flanders*	0	18	A	51	4
Haphnia in *Denmark*	0	52	A	55	43
Huntingdon in *England*	0	1	S	52	24
Hieruſalem	3	2	A	32	10
Knockfergus in *Ireland*	0	29	S	54	40
Leyden in *Holland*	0	21	A	52	7
Lisbon in *Portugal*	0	34	S	38	45
Leiceſter in *England*	0	4	S	52	41
Lincoln in *England*	0	1	S	53	15
LONDON.	0	0		51	32
Middleburg in *Zeland*	0	18	A	51	30
Madrid in *Spain*	0	9	S	40	45

A CATA-

A CATALOGUE of some of the most Eminent Cities and Towns in the *World*, with their Latitude, and difference of Meridians from *London*.

Names of the Cities.	Diff. Merid. H	'		Alt. Po. °	'
Naples in *Italy*	1	0	A	40	42
Northampton in *England*	0	3	S	52	18
Norwich in *England*	0	5	A	52	46
Norimberg in *Germany*	0	48	A	49	26
Nottingham in *England*	0	4	S	53	0
Oſtend in *Flanders*	0	16	A	51	10
Oxford in *England*	0	5	S	51	45
Pickworth Sedes Authoris	0	2	S	52	40
Paris in *France*	0	8	A	48	39
Prague in *Bohemia*	0	58	A	50	6
Pembroke in *England*	0	19	S	51	54
Peterborough in *England*	0	1	S	52	38
Quinſai in *China*	8	32	A	40	0
Ratisbone in *Bavaria*	0	51	A	49	9
Richmond in *England*	0	7	S	54	26
Rochel in *Aquitain*	0	4	S	45	49
Rome in *Italy*	0	51	A	42	2
Rotterdam in *Holland*	0	15	A	51	55
Sarum in *England*	0	7	S	51	12
Sardis in *Lydia*	2	24	A	38	34
Salamanca in *Spain*	0	20	S	41	12
Salisburgh in *Bavaria*	0	56	A	47	42
Stafford in *England*	0	9	S	52	54
Spires in *Germany*	0	37	A	49	24
Stockholm in *Sweden*	1	3	A	58	50
Stamford in *England*	0	2	S	52	41
Theſſalonica	1	47	A	41	32
Toledo in *Spain*	0	24	S	40	10
Tubinga in *Sweden*	0	40	A	48	34
Valentia in *Spain*	0	7	S	39	55
Venice	0	50	A	45	15
Vienna in *Auſtria*	1	8	A	48	22
Ulm in *Sweden*	0	44	A	48	24
Uraniburg in *Denmark*	0	52	A	55	55
Warwick in *England*	0	6	S	52	25
Witteberg in *Saxony*	0	54	A	51	52
Wincheſter in *England*	0	8	S	51	13
Worms in *Germany*	0	31	A	50	25
Worceſter in *England*	0	9	S	52	18

A TABLE

A TABLE of the SUN's Mean Motion.

Years aft. Ch	Longit. ☉. S	o	′	″	Anomal ☉. S	o	′	″
1	9	7	59	57	6	29	39	48
101	9	8	44	50	6	28	41	58
201	9	9	29	42	6	27	44	8
301	9	10	14	35	6	26	46	18
401	9	10	59	28	6	25	48	28
501	9	11	44	20	6	24	50	37
601	9	12	29	13	6	23	52	47
701	9	13	14	6	6	22	54	57
801	9	13	58	58	6	21	57	7
901	9	14	43	51	6	20	59	17
1001	9	15	28	44	6	20	1	27
1101	9	16	13	37	6	19	3	37
1201	9	16	58	29	6	18	5	47
1301	9	17	43	22	6	17	7	57
1401	9	18	28	15	6	16	10	7
1501	9	19	13	7	6	15	12	16
1601	9	19	58	0	6	14	14	26
1701	9	20	42	53	6	13	16	36
1801	9	21	27	45	6	12	18	46
1901	9	22	12	38	6	11	20	56
2001	9	22	57	31	6	10	23	6

Middle Motion of the Sun in the intermediate Years.

20	0	0	8	59	11	29	48	26
40	0	0	17	57	11	29	36	52
60	0	0	26	56	11	29	25	18
80	0	0	35	54	11	29	13	44
100	0	0	44	53	11	29	2	10
1000	0	7	28	47	11	20	21	39

	Years.	Longit. ☉ S	o	′	″	Anomal. ☉. S	o	′	″
	1	11	29	45	40	11	29	44	38
	2	11	29	31	20	11	29	29	16
	3	11	29	16	59	11	29	13	54
B	4	0	0	1	48	11	29	57	41
	5	11	29	47	28	11	29	42	20
	6	11	29	33	7	11	29	26	58
	7	11	29	18	47	11	29	11	35
B	8	0	0	3	35	11	29	55	22
	9	11	29	49	15	11	29	40	1
	10	11	29	34	55	11	29	24	39
	11	11	29	20	35	11	29	9	17
B	12	0	0	5	23	11	29	53	3
	13	11	29	51	3	11	29	37	42
	14	11	29	36	43	11	29	22	20
	15	11	29	22	23	11	29	6	58
B	16	0	0	7	11	11	29	50	45
	17	11	29	52	51	11	29	35	23
	18	11	29	38	31	11	29	20	2
	19	11	29	24	10	11	29	4	39
B	20	0	0	8	59	11	29	48	26

Years from 1690.

1690	9	20	23	9	6	13	8	11
1691	9	20	8	49	6	12	52	44
B1692	9	19	54	28	6	12	37	27
1693	9	20	39	17	6	13	21	13
1694	9	20	24	57	6	13	5	52
1695	9	20	10	36	6	12	50	30
B1696	9	19	56	16	6	12	35	8
1697	9	20	41	5	6	13	18	55
1698	9	20	26	45	6	13	3	39

A TABLE of the SUN's Mean Motion

Years.	Longit. ☉.				Anomal. ☉.				Years.	Longit. ☉.				Anomal. ☉			
	S	o	'	''	S	o	'	''		S	o	'	''	S	o	'	''
1699	9	20	12	24	6	12	48	12	1729	9	20	55	37	6	13	0	24
B1700	9	19	58	4	6	12	32	49	1730	9	20	41	17	6	12	45	3
1701	9	20	42	53	6	13	16	36	1731	9	20	26	56	6	12	29	41
1702	9	20	28	33	6	13	1	15	B1732	9	20	12	36	6	12	14	19
1703	9	20	14	12	6	12	45	52	1733	9	20	57	25	6	12	58	5
B1704	9	19	59	52	6	12	30	30	1734	9	20	43	4	6	12	42	44
1705	9	20	44	41	6	13	14	17	1735	9	20	28	44	6	12	27	22
1706	9	20	30	21	6	12	58	56	B1736	9	20	14	23	6	12	12	0
1707	9	20	16	0	6	12	43	33	1737	9	20	59	12	6	12	55	47
B1708	9	20	1	40	6	12	28	11	1738	9	20	44	52	6	12	40	25
1709	9	20	46	29	6	13	11	58	1739	9	20	30	31	6	12	25	4
1710	9	20	32	9	6	12	56	37	B1740	9	20	16	11	6	12	9	41
1711	9	20	17	48	6	12	41	15	1741	9	21	0	50	6	12	53	28
B1712	9	20	3	28	6	12	25	53	1742	9	20	46	30	6	12	38	7
1713	9	20	48	17	6	13	9	39	1743	9	20	32	9	6	12	22	44
1714	9	20	33	57	6	12	54	18	B1744	9	20	17	49	6	12	7	22
1715	9	20	29	36	6	12	38	56	1745	9	21	2	38	6	12	51	9
B1716	9	20	5	16	6	12	23	34	1746	9	20	48	18	6	12	35	48
1717	9	20	50	5	6	13	7	21	1747	9	20	33	57	6	12	20	25
1718	9	20	35	45	6	12	51	59	B1748	9	20	19	37	6	12	5	3
1719	9	20	21	24	6	12	36	38	1749	9	21	4	26	6	12	48	50
B1720	9	20	7	3	6	12	21	15	1750	9	20	50	5	6	12	33	29
1721	9	20	51	52	6	13	5	2	1751	9	20	35	44	6	12	18	7
1722	9	20	37	32	6	12	49	41	B1752	9	20	21	24	6	12	2	45
1723	9	20	23	11	6	12	34	18	1753	9	21	6	13	6	12	46	31
B1724	9	20	8	51	6	12	18	56	1754	9	20	51	52	6	12	31	10
1725	9	20	53	40	6	13	2	43	1755	9	20	37	31	6	12	15	48
1726	9	20	39	19	6	12	47	22	B1756	9	20	23	11	6	12	0	26
1727	9	20	25	9	6	12	31	59	1757	9	21	8	0	6	12	44	13
B1728	9	20	10	48	6	12	16	37	1758	9	20	53	39	6	12	28	51

A TABLE of the SUN's Mean Motion.

Years.	Longit. ☉. S	o	′	″	Anomal. ☉. S	o	′	″
1759	9	20	39	19	6	12	13	29
B1760	9	20	24	58	6	11	58	7
1761	9	21	9	48	6	12	41	54
1762	9	20	55	27	6	12	26	33
1763	9	20	41	7	6	12	11	10
B1764	9	20	26	46	6	11	55	48
1765	9	21	11	25	6	12	39	35
1766	9	20	57	5	6	12	24	14
1767	9	20	42	49	6	12	8	51
B1768	9	20	28	28	6	11	53	29
1769	9	21	13	17	6	12	37	16
1770	9	20	58	57	6	12	21	35
1771	9	20	44	36	6	12	6	33
B1772	9	20	30	15	6	11	51	11
1773	9	21	15	4	6	12	34	57
1774	9	20	0	44	6	12	19	36
1775	9	20	46	23	6	12	4	14
B1776	9	20	32	2	6	11	48	52
1777	9	21	16	51	6	12	32	39
1778	9	21	2	31	6	12	17	17
1779	9	20	48	10	6	12	1	54
B1780	9	20	33	59	6	11	46	33
1781	9	21	18	48	6	12	30	20
1782	9	21	4	27	6	12	14	59
1783	9	20	50	6	6	11	59	36
B1784	9	20	35	46	6	11	44	14
1785	9	21	20	35	6	12	28	1
1786	9	21	6	14	6	12	12	40
1787	9	20	51	54	6	11	57	17
B1788	9	20	37	33	6	11	41	55
1789	9	21	22	22	6	12	25	42
1790	9	21	8	2	6	12	10	21
1791	9	20	53	41	6	11	54	59
B1792	9	20	39	20	6	11	39	37
1793	9	21	24	9	6	12	23	23
1794	9	21	9	49	6	12	8	2
1795	9	20	55	28	6	11	52	40
B1796	9	20	41	7	6	11	37	18
1797	9	21	25	57	6	12	21	5
1798	9	21	11	36	6	12	5	43
1799	9	20	57	16	6	11	50	21
B1800	9	20	42	55	6	11	34	59
1801	9	21	27	44	6	12	18	46
1802	9	21	13	24	6	12	3	25
1803	9	20	59	3	6	11	48	2
B1804	9	20	44	42	6	11	32	40
1805	9	21	29	31	6	12	16	27
1806	9	21	15	11	6	12	1	6
1807	9	21	0	50	6	11	45	43
B1808	9	20	46	30	6	11	30	21
1809	9	21	31	19	6	12	14	8
1810	9	21	16	59	6	11	58	47
1811	9	21	2	40	6	11	43	25
B1812	9	20	48	20	6	11	28	3
1813	9	20	33	9	6	12	11	49
1814	9	21	18	49	6	11	56	28
1815	9	21	4	28	6	11	41	6
B1816	9	20	50	7	6	11	25	44
1817	9	21	34	56	6	12	9	31
1818	9	21	20	36	6	11	54	9

A TABLE of the SUN's Mean Motion.

Years.	Longit. ☉. S	o	′	″	Anomal. ☉ S	o	′	″
1819	9	21	6	15	6	11	38	48
B1820	9	20	51	54	6	11	23	25
1821	9	21	36	44	6	12	7	12
1822	9	21	22	23	6	11	51	50
1823	9	21	8	3	6	11	36	28
B1824	9	20	53	42	6	11	21	6

The Præceſſion of the Æquinoctial.

Chriſt years.	Præceſ. Æqu. S	o	′	″	Year Chr.	o ′ ″ Præc.	Æq.
1	0	5	10	56	1000	14 1	7
					1	0 0	50
1581	0	27	19	53	2	0 1	41
1601	0	27	36	43	3	0 2	31
1621	0	27	53	32	4	0 3	22
1641	0	28	10	21	5	0 4	12
1661	0	28	27	11	6	0 5	3
1681	0	28	44	0	7	0 5	53
1701	0	29	0	49	8	0 6	44
200	0	0	16	49	9	0 7	34
400	0	0	33	39	10	0 8	25
600	0	0	50	28	11	0 9	15
800	0	1	7	18	12	0 10	6
1000	0	1	24	7	13	0 10	56
2000	0	2	48	13	14	0 11	46
3000	0	4	12	20	15	0 12	37
4000	0	5	36	27	16	0 13	27
5000	0	7	0	33	17	0 14	18
6000	0	8	24	40	18	0 15	8
7000	0	9	48	47	19	0 15	59
8000	0	11	12	53			
9000	0	12	37	0	20	0 16	49

The Middle Motions of the Planets may be continued by the yearly Motions, as followeth.

SUN.	S	o	′	″
Longitude.	11	29	45	40
Anomaly.	11	29	44	38
Præceſ. Æqui.	0	0	0	50

SATURN.				
Longitude.	0	12	13	35
Anomaly.	0	12	12	15
Node.	0	0	0	36

JUPITER.				
Longitude.	1	0	20	32
Anomaly.	1	0	19	12
Node.	0	0	0	13

MARS.				
Longitude.	6	11	17	8
Anomaly.	6	11	15	55
Node.	0	0	0	43

VENUS.				
Longitude.	7	14	47	29
Anomaly.	7	14	46	1
Node.	0	0	0	37

MERCURY.				
Longitude.	1	23	43	16
Anomaly.	1	23	41	34
Node.	0	0	1	36

MOON.				
Longitude.	4	9	23	2
Anomaly.	2	28	43	8
Node.	0	19	19	43

The SUN's Mean Motion in Months and Days.

Com. Years	Præ. Eq.	JANUARY. Longit. ☉.				JANUARY. Anomal. ☉.				FEBRUARY. Longit. ☉.				FEBRUARY. Anomal. ☉.				Præ. Eq.	Bissextile.
		S	o	′	″	S	o	′	″	S	o	′	″	S	o	′	″	″	
1	0	0	0	59	8	0	0	59	8	1	1	32	26	1	1	32	21	4	0
2	0	0	1	58	17	0	1	58	17	1	2	31	35	1	2	31	30	4	1
3	0	0	2	57	25	0	2	57	25	1	3	30	43	1	3	30	38	5	2
4	1	0	3	56	33	0	3	56	32	1	4	29	51	1	4	29	45	5	3
5	1	0	4	55	42	0	4	55	41	1	5	29	0	1	5	28	54	5	4
6	1	0	5	54	50	0	5	54	49	1	6	28	8	1	6	28	2	5	5
7	1	0	6	53	58	0	6	53	57	1	7	27	16	1	7	27	10	5	6
8	1	0	7	53	7	0	7	53	6	1	8	26	25	1	8	26	19	5	7
9	1	0	8	52	15	0	8	52	14	1	9	25	33	1	9	25	27	5	8
10	1	0	9	51	23	0	9	51	21	1	10	24	41	1	10	24	34	5	9
11	2	0	10	50	31	0	10	50	29	1	11	23	49	1	11	23	42	6	10
12	2	0	11	49	40	0	11	49	38	1	12	22	58	1	12	22	51	6	11
13	2	0	12	48	48	0	12	48	46	1	13	22	6	1	13	21	59	5	12
14	2	0	13	47	57	0	13	47	55	1	14	21	15	1	14	21	8	5	13
15	2	0	14	47	5	0	14	47	3	1	15	20	23	1	15	20	16	6	14
16	2	0	15	46	13	0	15	46	10	1	16	19	31	1	16	19	23	6	15
17	2	0	16	45	22	0	16	45	19	1	17	18	40	1	17	18	32	6	16
18	2	0	17	44	30	0	17	44	27	1	18	17	48	1	18	17	40	6	17
19	3	0	18	43	38	0	18	43	35	1	19	16	56	1	19	16	48	6	18
20	3	0	19	42	47	0	19	42	44	1	20	16	5	1	20	15	57	7	19
21	3	0	20	41	55	0	20	41	52	1	21	15	13	1	21	15	5	7	20
22	3	0	21	41	3	0	21	40	59	1	22	14	21	1	22	14	12	7	21
23	3	0	22	40	12	0	22	40	8	1	23	13	30	1	23	13	21	7	22
24	3	0	23	39	20	0	23	39	16	1	24	12	38	1	24	12	29	7	23
25	3	0	24	38	28	0	24	38	24	1	25	11	46	1	25	11	37	7	24
26	4	0	25	37	37	0	25	37	33	1	26	10	55	1	26	10	46	7	25
27	4	0	26	36	45	0	26	36	41	1	27	10	3	1	27	9	54	8	26
28	4	0	27	35	53	0	27	35	48	1	28	9	11	1	28	9	1	8	27
29	4	0	28	35	2	0	28	34	57	1	29	8	20	1	29	8	10	8	28
30	4	0	29	34	10	0	29	34	5	0	0	0	0	0	0	0	0	0	29
31	4	1	0	33	18	1	0	33	13	0	0	0	0	0	0	0	0	0	30

The SUN's Mean Motion in Months and Days.

Comm. Years	Prec. Eq.	MARCH. Longit. ☉.				MARCH. Anomal. ☉.				APRIL. Longit. ☉.				APRIL. Anomal. ☉.				Prec. Eq.	Difference
		S	o	'	"	S	o	'	"	S	o	'	"	S	o	'	"	'	
1	8	1	29	8	20	1	29	8	10	2	29	41	38	2	29	41	23	12	0
2	8	2	0	7	28	2	0	7	18	3	0	40	47	3	0	40	32	12	1
3	8	2	1	6	36	2	1	6	26	3	1	39	55	3	1	39	40	12	2
4	9	2	2	5	44	2	2	5	33	3	2	39	3	3	2	38	47	13	3
5	9	2	3	4	53	2	3	4	42	3	3	38	12	3	3	37	56	13	4
6	9	2	4	4	1	2	4	3	50	3	4	37	20	3	4	37	4	13	5
7	9	2	5	3	9	2	5	2	58	3	5	36	28	3	5	36	12	13	6
8	9	2	6	2	18	2	6	2	7	3	6	35	37	3	6	35	21	13	7
9	9	2	7	1	26	2	7	1	15	3	7	34	45	3	7	34	29	13	8
10	9	2	8	0	34	2	8	0	22	3	8	33	53	3	8	33	36	13	9
11	10	2	8	59	42	2	8	59	30	3	9	33	1	3	9	32	44	14	10
12	10	2	9	58	51	2	9	58	39	3	10	32	10	3	10	31	53	14	11
13	10	2	10	57	59	2	10	57	47	3	11	31	18	3	11	31	1	14	12
14	10	2	11	57	8	2	11	56	56	3	12	30	27	3	12	30	10	14	13
15	10	2	12	56	16	2	12	56	4	3	13	29	35	3	13	29	18	14	14
16	10	2	13	55	24	2	13	55	11	3	14	28	43	3	14	28	25	14	15
17	10	2	14	54	33	2	14	54	20	3	15	27	52	3	15	27	34	14	16
18	10	2	15	53	41	2	15	53	28	3	16	27	0	3	16	26	42	15	17
19	11	2	16	52	49	2	16	52	36	3	17	26	8	3	17	25	50	15	18
20	11	2	17	51	58	2	17	51	45	3	18	25	17	3	18	24	59	15	19
21	11	2	18	51	6	2	18	50	53	3	19	24	25	3	19	24	7	15	20
22	11	2	19	50	14	2	19	50	0	3	20	23	33	3	20	23	14	15	21
23	11	2	20	49	23	2	20	49	9	3	21	22	42	3	21	22	23	15	22
24	11	2	21	48	31	2	21	48	17	3	22	21	50	3	22	21	31	15	23
25	11	2	22	47	39	2	22	47	25	3	23	20	58	3	23	20	39	15	24
26	11	2	23	46	48	2	23	46	34	3	24	20	7	3	24	19	48	16	25
27	12	2	24	45	56	2	24	45	42	3	25	19	15	3	25	18	56	16	26
28	12	2	25	45	4	2	25	44	49	3	26	18	23	3	26	18	4	16	27
29	12	2	26	44	13	2	26	43	58	3	27	17	32	3	27	17	12	16	28
30	12	2	27	43	21	2	27	43	6	3	28	16	40	3	28	16	20	16	29
31	12	2	28	42	29	2	28	42	15	3	29	15	48	3	29	15	28	17	30

The SUN's Mean Motion in Months and Days.

Com. Years	Præ. Eq.	MAY. Longit. ☉.				MAY. Anomal. ☉.				JUNE. Longit. ☉.				JUNE. Anomal. ☉.				Præ. Eq.	Bissextile.
	"	S	o	'	"	S	o	'	"	S	o	'	"	S	o	'	"	"	
1	17	3	29	15	48	3	29	15	28	4	29	49	0	4	29	48	41	21	0
2	17	4	0	14	56	4	0	14	36	5	0	48	5	5	0	47	50	21	1
3	17	4	1	14	4	4	1	13	44	5	1	47	23	5	1	46	58	21	2
4	17	4	2	13	12	4	2	12	51	5	2	46	31	5	2	46	5	21	3
5	17	4	3	12	21	4	3	12	0	5	3	45	40	5	3	45	14	21	4
6	17	4	4	11	29	4	4	11	8	5	4	44	48	5	4	44	22	22	5
7	18	4	5	10	37	4	5	10	16	5	5	43	56	5	5	43	30	22	6
8	18	4	6	9	46	4	6	9	25	5	6	43	5	5	6	42	39	22	7
9	18	4	7	8	54	4	7	8	33	5	7	42	13	5	7	41	47	22	8
10	18	4	8	8	2	4	8	7	40	5	8	41	21	5	8	40	54	22	9
11	18	4	9	7	10	4	9	6	48	5	9	40	29	5	9	40	2	22	10
12	18	4	10	6	19	4	10	5	57	5	10	39	38	5	10	39	11	22	11
13	18	4	11	5	27	4	11	5	5	5	11	38	46	5	11	38	19	23	12
14	19	4	12	4	36	4	12	4	14	5	12	37	55	5	12	37	28	23	13
15	19	4	13	3	44	4	13	3	22	5	13	37	3	5	13	36	36	23	14
16	19	4	14	2	52	4	14	2	29	5	14	36	11	5	14	35	43	23	15
17	19	4	15	2	1	4	15	1	38	5	15	35	20	5	15	34	52	23	16
18	19	4	16	1	9	4	16	0	46	5	16	34	28	5	16	34	0	23	17
19	19	4	17	0	17	4	16	59	54	5	17	33	36	5	17	33	8	23	18
20	19	4	17	59	26	4	17	59	3	5	18	32	45	5	18	32	17	23	19
21	20	4	18	58	34	4	18	58	11	5	19	31	53	5	19	31	25	24	20
22	20	4	19	57	42	4	19	57	18	5	20	31	1	5	20	30	32	24	21
23	20	4	20	56	51	4	20	56	27	5	21	30	10	5	21	29	41	24	22
24	20	4	21	55	59	4	21	55	35	5	22	29	18	5	22	28	49	24	23
25	20	4	22	55	7	4	22	54	43	5	23	28	26	5	23	27	57	24	24
26	20	4	23	54	16	4	23	53	52	5	24	27	35	5	24	27	6	24	25
27	20	4	24	53	24	4	24	53	0	5	25	26	43	5	25	26	14	24	26
28	20	4	25	52	32	4	25	52	7	5	26	25	51	5	26	25	21	24	27
29	21	4	26	51	41	4	26	51	16	5	27	25	0	5	27	24	30	25	28
30	21	4	27	50	49	4	27	50	24	5	28	24	8	5	28	23	38	25	29
31	21	4	28	49	57	4	28	49	32	5	29	23	16	5	29	22	46	25	30

The SUN's Mean Motion in Months and Days.

Com. Years	Præ. Eq. ♈	JULY. Longit. ☉.				JULY. Anomal. ☉.				AUGUST. Longit. ☉.				AUGUST. Anomal. ☉.				Præ. Eq. ♈	Biſſextile
		S	o	′	″	S	o	′	″	S	o	′	″	S	o	′	″		
1	25	5	29	23	16	5	29	22	46	6	29	56	33	6	29	55	57	29	0
2	25	6	0	22	24	6	0	21	53	7	0	55	42	7	0	55	6	29	1
3	25	6	1	21	32	6	1	21	1	7	1	54	50	7	1	54	15	29	2
4	26	6	2	20	40	6	2	20	8	7	2	53	58	7	2	53	21	30	3
5	26	6	3	19	49	6	3	19	17	7	3	53	7	7	3	52	30	30	4
6	26	6	4	18	57	6	4	18	25	7	4	52	15	7	4	51	38	30	5
7	26	6	5	18	5	6	5	17	23	7	5	51	23	7	5	50	46	30	6
8	26	6	6	17	14	6	6	16	42	7	6	50	32	7	6	49	55	30	7
9	26	6	7	16	22	6	7	15	50	7	7	49	40	7	7	49	3	30	8
10	26	6	8	15	30	6	8	14	57	7	8	48	48	7	8	48	10	30	9
11	26	6	9	14	38	6	9	14	5	7	9	47	56	7	9	47	18	31	10
12	27	6	10	13	47	6	10	13	14	7	10	47	5	7	10	46	27	31	11
13	27	6	11	12	55	6	11	12	22	7	11	46	13	7	11	45	35	31	12
14	27	6	12	12	4	6	12	11	31	7	12	45	22	7	12	44	44	31	13
15	27	6	13	11	12	6	13	10	39	7	13	44	30	7	13	43	52	31	14
16	27	6	14	10	20	6	14	9	46	7	14	43	38	7	14	42	59	31	15
17	27	6	15	9	29	6	15	8	55	7	15	42	47	7	15	42	8	31	16
18	27	6	16	8	37	6	16	8	3	7	16	41	55	7	16	41	16	31	17
19	27	6	17	7	45	6	17	7	11	7	17	41	3	7	17	40	24	32	18
20	27	6	18	6	54	6	18	6	20	7	18	40	12	7	18	39	33	32	19
21	28	6	19	6	2	6	19	5	28	7	19	39	20	7	19	38	41	32	20
22	28	6	20	5	10	6	20	4	35	7	20	38	28	7	20	37	48	32	21
23	28	6	21	4	19	6	21	3	44	7	21	37	37	7	21	36	57	32	22
24	28	6	22	3	27	6	22	2	52	7	22	36	47	7	22	36	5	33	23
25	28	6	23	2	35	6	23	2	0	7	23	35	53	7	23	35	13	33	24
26	28	6	24	1	44	6	24	1	9	7	24	35	2	7	24	34	22	33	25
27	28	6	25	0	52	6	25	0	17	7	25	34	10	7	25	33	30	33	26
28	29	6	26	0	00	6	25	59	24	7	26	33	18	7	26	32	37	33	27
29	29	6	26	59	9	6	26	58	33	7	27	32	27	7	27	31	46	33	28
30	29	6	27	58	17	6	27	57	41	7	28	31	35	7	28	30	54	34	29
31	29	6	28	57	25	6	28	56	49	7	29	30	43	7	29	30	2	34	30

The SUN's Mean Motion in Months and Days.

Com. Years	Præ. Eq. ♎	SEPTEMBER. Longit. ☉. S	o	′	″	Anomal. ☉. S	o	′	″	OCTOBER. Longit. ☉. S	o	′	″	Anomal. ☉. S	o	′	″	Præ. Eq. ♎	Biſſextile.
1	34	8	0	29	52	8	0	29	18	9	0	4	2	9	0	3	22	38	0
2	34	8	1	29	1	8	1	28	27	9	1	3	11	9	1	2	29	38	1
3	34	8	2	28	9	8	2	27	35	9	2	2	19	9	2	1	36	39	2
4	34	8	3	27	17	8	3	26	42	9	3	1	27	9	3	0	43	39	3
5	34	8	4	26	26	8	4	25	51	9	4	0	36	9	3	59	50	39	4
6	35	8	5	25	34	8	5	24	59	9	4	59	44	9	4	58	58	39	5
7	35	8	6	24	42	8	6	24	7	9	5	58	52	9	5	58	5	39	6
8	35	8	7	23	51	8	7	23	16	9	6	58	1	9	6	57	13	39	7
9	35	8	8	22	59	8	8	22	24	9	7	57	9	9	7	56	21	39	8
10	35	8	9	22	7	8	9	21	31	9	8	56	17	9	8	55	28	40	9
11	35	8	10	21	15	8	10	20	39	9	9	55	25	9	9	54	36	40	10
12	36	8	11	20	24	8	11	19	48	9	10	54	34	9	10	53	45	40	11
13	36	8	12	19	32	8	12	18	56	9	11	53	42	9	11	52	53	40	12
14	36	8	13	18	39	8	13	18	5	9	12	52	49	9	12	52	2	40	13
15	36	8	14	17	48	8	14	17	13	9	13	51	58	9	13	51	10	40	14
16	36	8	15	16	57	8	15	16	20	9	14	51	7	9	14	50	17	40	15
17	36	8	16	16	6	8	16	15	29	9	15	50	16	9	15	49	26	40	16
18	36	8	17	15	14	8	17	14	37	9	16	49	24	9	16	48	34	41	17
19	36	8	18	14	22	8	18	13	45	9	17	48	32	9	17	47	42	41	18
20	37	8	19	13	31	8	19	12	51	9	18	47	41	9	18	46	51	41	19
21	37	8	20	12	39	8	20	12	2	9	19	46	49	9	19	45	59	41	20
22	37	8	21	11	47	8	21	11	9	9	20	45	57	9	20	45	6	41	21
23	37	8	22	10	56	8	22	10	18	9	21	45	6	9	21	44	15	41	22
24	37	8	23	10	4	8	23	9	26	9	22	44	14	9	22	43	23	41	23
25	37	8	24	9	12	8	24	8	34	9	23	43	22	9	23	42	31	42	24
26	37	8	25	8	21	8	25	7	43	9	24	42	31	9	24	41	40	42	25
27	38	8	26	7	29	8	26	6	51	9	25	41	39	9	25	40	48	42	26
28	38	8	27	6	37	8	27	5	58	9	26	40	47	9	26	39	56	42	27
29	38	8	28	5	46	8	28	5	7	9	27	39	56	9	27	39	4	42	28
30	38	8	29	4	54	8	29	4	15	9	28	39	4	9	28	38	12	42	29
31	38	9	0	4	2	9	0	3	22	9	29	38	12	9	29	37	20	42	30

The SUN's Mean Motion in Months and Days.

Com. Years	Præ. Eq. ☉	NOVEMBER. Longit. ☉. S	o	′	″	Anomal. ☉. S	o	′	″	DECEMBER. Longit. ☉. S	o	′	″	Anomal. ☉. S	o	′	″	Præ. Eq. ☉	Biſſextile
1	42	10	0	37	20	10	0	36	27	11	0	11	30	11	0	10	32	46	0
2	42	10	1	36	29	10	1	35	36	11	1	10	39	11	1	9	40	46	1
3	43	10	2	35	37	10	2	34	44	11	2	9	47	11	2	8	48	47	2
4	43	10	3	34	45	10	3	33	52	11	3	8	55	11	3	7	55	47	3
5	43	10	4	33	54	10	4	33	0	11	4	8	4	11	4	7	4	47	4
6	43	10	5	33	2	10	5	32	8	11	5	7	12	11	5	6	12	47	5
7	43	10	6	32	10	10	6	31	16	11	6	6	20	11	6	5	20	47	6
8	43	10	7	31	19	10	7	30	25	11	7	5	29	11	7	4	29	47	7
9	43	10	8	30	27	10	8	29	33	11	8	4	37	11	8	3	37	47	8
10	43	10	9	29	35	10	9	28	40	11	9	3	45	11	9	2	44	47	9
11	44	10	10	28	43	10	10	27	48	11	10	2	53	11	10	1	52	48	10
12	44	10	11	27	52	10	11	26	57	11	11	2	2	11	11	1	1	48	11
13	44	10	12	27	0	10	12	26	5	11	12	1	10	11	12	0	9	48	12
14	44	10	13	26	9	10	13	25	14	11	13	0	19	11	12	59	18	48	13
15	44	10	14	25	17	10	14	24	22	11	13	59	27	11	13	58	26	48	14
16	44	10	15	24	25	10	15	23	29	11	14	58	35	11	14	57	33	48	15
17	44	10	16	23	34	10	16	22	38	11	15	57	44	11	15	56	42	48	16
18	45	10	17	22	42	10	17	21	46	11	16	56	52	11	16	55	50	49	17
19	45	10	18	21	50	10	18	20	54	11	17	56	0	11	17	54	58	49	18
20	45	10	19	20	59	10	19	20	3	11	18	55	9	11	18	54	7	49	19
21	45	10	20	20	7	10	20	19	11	11	19	54	17	11	19	53	15	49	20
22	45	10	21	19	15	10	21	18	18	11	20	53	25	11	20	52	22	49	21
23	45	10	22	18	24	10	22	17	27	11	21	52	34	11	21	51	31	49	22
24	45	10	23	17	32	10	23	16	35	11	22	51	42	11	22	50	39	49	23
25	45	10	24	16	40	10	24	15	43	11	23	50	50	11	23	49	47	50	24
26	46	10	25	15	49	10	25	14	52	11	24	49	59	11	24	48	56	50	25
27	46	10	26	14	57	10	26	14	0	11	25	49	7	11	25	48	4	50	26
28	46	10	27	14	5	10	27	13	7	11	26	48	15	11	26	47	11	50	27
29	46	10	28	13	14	10	28	12	16	11	27	47	24	11	27	46	20	50	28
30	46	10	29	12	22	10	29	11	24	11	28	46	32	11	28	45	28	50	29
31	46	11	0	11	30	11	0	10	32	11	29	45	40	11	29	44	36	50	30

The SUN'S Mean Motion in Ho. Min. and Sec.

H	Longit. ⊙			Anom. ⊙			H	Longit. ⊙			Anom. ⊙		
'	°	'	''	°	'	''	'	°	'	''	°	'	''
1	0	2	28	0	2	28	31	1	16	23	1	16	23
2	0	4	56	0	4	56	32	1	18	51	1	18	51
3	0	7	24	0	7	24	33	1	21	19	1	21	19
4	0	9	51	0	9	51	34	1	23	47	1	23	47
5	0	12	19	0	12	19	35	1	26	15	1	26	15
6	0	14	47	0	14	47	36	1	28	43	1	28	43
7	0	17	15	0	17	15	37	1	31	11	1	31	11
8	0	19	43	0	19	43	38	1	33	39	1	33	39
9	0	22	11	0	22	11	39	1	36	6	1	36	6
10	0	24	38	0	24	38	40	1	38	34	1	38	34
11	0	27	6	0	27	6	41	1	41	2	1	41	2
12	0	29	34	0	29	34	42	1	43	30	1	43	30
13	0	32	2	0	32	2	43	1	45	58	1	45	58
14	0	34	30	0	34	30	44	1	48	25	1	48	25
15	0	36	58	0	36	58	45	1	50	53	1	50	53
16	0	39	25	0	39	25	46	1	53	21	1	53	21
17	0	41	53	0	41	53	47	1	55	49	1	55	49
18	0	44	21	0	44	21	48	1	58	17	1	58	17
19	0	46	49	0	46	49	49	2	0	44	2	0	44
20	0	49	17	0	49	17	50	2	3	12	2	3	12
21	0	51	45	0	51	45	51	2	5	40	2	5	40
22	0	54	13	0	54	13	52	2	8	8	2	8	8
23	0	56	40	0	56	40	53	2	10	36	2	10	36
24	0	59	8	0	59	8	54	2	13	3	2	13	3
25	1	1	36	1	1	36	55	2	15	31	2	15	31
26	1	4	4	1	4	4	56	2	17	59	2	17	59
27	1	6	32	1	6	32	57	2	20	27	2	20	27
28	1	9	0	1	9	0	58	2	22	55	2	22	55
29	1	11	27	1	11	27	59	2	25	23	2	25	23
30	1	13	55	1	13	55	60	2	27	51	2	27	51
''	'	''	'''	'	''	'''	''	'	''	'''	'	''	'''

A TABLE of the SUN's Æquation.

Degrees.	Sig. 0. Equa. Sub. ° ′ ″	Logar.	Sig. 1. Equa. Sub. ° ′ ″	Logar.	Sig. 2. Equa. Sub. ° ′ ″	Logar.	Degrees.
0	0 0 0	500773	0 57 51	500674	1 40 55	500400	30
1	0 1 56	500773	0 59 36	500667	1 41 57	500388	29
2	0 3 57	500772	1 1 20	500660	1 42 56	500376	28
3	0 5 58	500772	1 3 4	500653	1 43 55	500365	27
4	0 7 59	500771	1 4 45	500646	1 44 51	500353	26
5	0 9 59	500770	1 6 27	500639	1 45 45	500341	25
6	0 11 59	500769	1 8 6	500631	1 46 38	500329	24
7	0 13 59	500767	1 9 44	500623	1 47 28	500316	23
8	0 15 59	500765	1 11 21	500615	1 48 17	500304	22
9	0 17 59	500763	1 12 57	500607	1 49 3	500292	21
10	0 19 58	500761	1 14 32	500599	1 49 48	500279	20
11	0 21 57	500759	1 16 5	500590	1 50 31	500266	19
12	0 23 55	500757	1 17 37	500582	1 51 11	500254	18
13	0 25 54	500754	1 19 8	500573	1 51 50	500241	17
14	0 27 52	500751	1 20 37	500564	1 52 27	500228	16
15	0 29 49	500748	1 22 5	500555	1 53 1	500216	15
16	0 31 46	500744	1 23 32	500546	1 53 34	500203	14
17	0 33 43	500740	1 24 58	500537	1 54 4	500190	13
18	0 35 39	500736	1 26 20	500528	1 54 33	500177	12
19	0 37 35	500732	1 27 41	500517	1 54 59	500164	11
20	0 39 30	500728	1 29 2	500507	1 55 27	500151	10
21	0 41 23	500723	1 30 21	500497	1 55 45	500137	9
22	0 43 16	500719	1 31 38	500487	1 56 5	500124	8
23	0 45 8	500714	1 32 53	500477	1 56 23	500111	7
24	0 47 0	500709	1 34 7	500466	1 56 39	500098	6
25	0 48 50	500704	1 35 19	500455	1 56 52	500084	5
26	0 50 40	500698	1 36 30	500444	1 57 4	500071	4
27	0 52 29	500693	1 37 39	500433	1 57 13	500057	3
28	0 54 17	500687	1 38 46	500422	1 57 20	500044	2
29	0 56 4	500681	1 39 51	500411	1 57 25	500030	1
30	0 57 51	500674	1 40 55	500400	1 57 28	500017	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of the SUN's Æquation.

Degrees.	Sig. 3. Equa. Sub. ° ′ ″	Logar.	Sig. 4. Equa. Sub. ° ′ ″	Logar.	Sig. 5. Equa. Sub. ° ′ ″	Logar.	Degrees.
0	1 57 28	500017	1 43 8	499624	1 0 4	499329	30
1	1 57 30	500003	1 42 7	499613	0 58 15	499322	29
2	1 57 29	499989	1 41 4	499601	0 56 25	499316	28
3	1 57 27	499976	1 39 59	499589	0 54 33	499309	27
4	1 57 24	499963	1 38 52	499577	0 52 41	499302	26
5	1 57 18	499949	1 37 44	499565	0 50 48	499296	25
6	1 57 10	499938	1 36 33	499554	0 48 54	499290	24
7	1 57 0	499923	1 35 20	499543	0 46 58	499285	23
8	1 56 47	499909	1 34 6	499532	0 45 2	499279	22
9	1 56 32	499896	1 32 51	499521	0 43 5	499274	21
10	1 56 15	499883	1 31 33	499510	0 41 8	499269	20
11	1 55 56	499868	1 30 14	499499	0 39 9	499264	19
12	1 55 35	499855	1 28 52	499488	0 37 9	499260	18
13	1 55 11	499842	1 27 29	499478	0 35 9	499256	17
14	1 54 45	499828	1 26 5	499468	0 33 8	499252	16
15	1 54 18	499815	1 24 38	499458	0 31 7	499248	15
16	1 53 48	499802	1 23 10	499447	0 29 5	499245	14
17	1 53 15	499789	1 21 41	499437	0 27 2	499241	13
18	1 52 41	499776	1 20 19	499428	0 24 59	499238	12
19	1 52 5	499763	1 18 37	499419	0 22 55	499235	11
20	1 51 26	499750	1 17 3	499410	0 20 51	499233	10
21	1 50 46	499737	1 15 27	499401	0 18 46	499230	9
22	1 50 3	499724	1 13 50	499392	0 16 41	499228	8
23	1 49 18	499711	1 12 11	499384	0 14 36	499226	7
24	1 48 31	499698	1 10 31	499375	0 12 30	499225	6
25	1 47 43	499686	1 8 50	499367	0 10 24	499223	5
26	1 46 52	499673	2 7 7	499359	0 8 18	499222	4
27	1 45 59	499661	1 5 23	499351	0 6 12	499221	3
28	1 45 5	499648	1 3 38	499344	0 4 6	499220	2
29	1 44 7	499636	1 1 42	499336	0 2 0	499220	1
30	1 43 8	499624	1 0 4	499329	0 0 0	499220	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of the MOON's Mean Motion.

The Epocha or Radices.

Anni Christ	Longit. ☽ S	o	'	Anom. ☽ S	o	'	Node ☽ S	o	'
1	4	2	32	6	21	42	8	28	31
101	2	10	21	1	10	13	4	14	20
201	0	18	9	7	28	43	0	0	8
301	10	25	58	2	17	14	7	15	58
401	9	3	47	9	5	45	3	1	47
501	7	11	35	3	24	16	10	17	35
601	5	19	24	10	12	47	6	3	24
701	3	27	12	5	1	18	1	19	13
801	2	5	1	11	19	49	9	5	1
901	0	12	50	6	8	20	4	20	50
1001	10	20	38	0	26	50	0	6	39
1101	8	28	27	7	15	21	7	22	28
1201	7	6	16	2	3	52	3	8	17
1301	5	14	4	8	22	23	10	24	6
1401	3	21	53	3	10	54	6	9	55
1501	1	29	41	9	29	25	1	25	46
1601	0	7	30	4	17	55	9	11	33
1701	10	15	19	11	6	26	4	27	22
1801	8	23	7	5	24	57	0	13	11
1901	7	0	56	0	13	28	7	28	59
2001	5	8	44	7	1	59	3	14	48

The Moon's Mean Motion exceeding 20 Years.

204	13	34	1	9	42	0	26	50
408	27	7	2	19	24	1	23	40
601	10	41	3	29	6	2	20	31
805	24	15	5	8	49	3	17	21
1010	7	49	6	18	31	4	14	11
1006	18	6	6	5	8	8	21	51

Moon's Mean Motion to 20 Years

Years.	Longit. ☽ S	o	'	Anom. ☽ S	o	'	Node ☽ S	o	'
1	4	9	23	2	28	43	0	19	20
2	8	18	46	5	27	26	1	8	39
3	0	28	9	8	26	9	1	27	59
B 4	5	20	43	0	7	56	2	17	22
5	10	0	6	3	6	40	3	6	42
6	2	9	29	6	5	23	3	26	1
7	6	18	52	9	4	6	4	15	21
B 8	11	11	25	0	15	53	5	4	44
9	3	20	49	3	24	36	5	24	4
10	8	0	12	6	13	19	6	13	24
11	0	9	35	9	12	2	7	2	43
B 12	5	2	8	0	23	49	7	22	6
13	9	11	31	3	22	32	8	11	26
14	1	20	54	6	21	16	9	0	46
15	6	0	17	9	19	59	9	20	5
B 16	10	22	51	1	1	46	10	9	28
17	3	2	14	4	0	29	10	28	48
18	7	11	37	6	29	12	11	18	8
19	11	21	0	9	27	55	5	7	27
B 20	4	13	34	1	9	42	0	26	50

Years from 1690.

1690	9	22	33	1	11	20	0	0	8
1691	2	1	56	4	9	57	11	10	49
B1692	6	11	20	7	8	46	10	21	29
1693	11	3	53	10	20	34	10	2	6
1694	3	13	16	1	19	17	9	12	46
1695	7	22	39	4	18	0	8	23	23
B1696	0	2	27	7	16	43	8	4	7
1697	4	24	36	10	28	30	7	14	44
1698	9	3	59	1	27	13	6	25	24

A TABLE of the MOON's Mean Motion

Years.	Longit. ☽			Anom. ☽			Node ☽		
	S	o	'	S	o	'	S	o	'
1699	1	13	22	4	25	56	6	6	5
B1700	5	22	45	7	24	39	5	16	45
1701	10	15	19	11	6	26	4	27	22
1702	2	24	42	2	5	9	4	8	2
1703	7	4	5	5	3	53	3	18	43
B1704	11	13	28	8	2	36	2	29	23
1705	4	6	1	11	14	23	2	10	0
1706	8	15	24	2	13	6	1	20	40
1707	0	24	47	5	11	49	1	1	20
B1708	5	4	10	8	10	32	0	12	1
1709	9	26	44	11	22	19	11	22	38
1710	2	6	7	2	21	2	11	3	18
1711	6	15	30	5	19	45	10	13	58
B1712	10	24	53	8	18	29	9	24	39
1713	3	17	37	0	0	16	9	5	16
1714	7	26	50	2	28	59	8	15	56
1715	0	6	13	6	5	42	7	26	36
B1716	4	15	36	8	26	25	7	7	17
1717	9	8	10	0	8	12	6	17	54
1718	1	17	33	3	6	55	5	28	34
1719	5	26	56	6	5	37	5	9	14
B1720	10	6	19	9	4	21	4	19	54
1721	2	28	52	0	16	9	4	0	32
1722	7	8	15	3	14	52	3	11	12
1723	11	17	38	6	13	35	2	21	52
B1724	7	27	19	12	18	2	2	2	33
1725	3	19	35	0	24	51	1	13	10
1726	0	28	58	3	22	48	0	23	50
1727	5	8	21	6	21	32	0	4	30
B1728	9	17	44	9	29	14	11	15	11

Years.	Longit. ☽			Anom. ☽			Node ☽		
	S	o	'	S	o	'	S	o	'
1729	2	10	18	1	2	1	10	25	48
1730	6	19	41	4	0	55	10	6	28
1731	10	29	4	6	29	28	9	17	8
B1732	3	8	27	9	28	11	8	27	48
1733	8	1	1	1	9	58	8	8	26
1734	0	10	24	4	8	41	7	19	6
1735	4	19	47	7	7	24	6	29	46
B1736	8	29	10	10	6	7	6	10	26
1737	1	21	43	1	17	54	5	21	4
1738	6	1	6	4	16	37	5	1	44
1739	10	10	29	7	15	21	4	12	24
B1740	2	19	52	10	14	4	3	23	4
1741	7	12	26	2	25	51	3	3	42
1742	11	21	49	4	24	34	2	14	22
1743	4	1	12	7	23	17	1	25	2
B1744	8	10	35	10	22	0	1	5	42
1745	1	3	9	2	3	47	0	16	19
1746	5	12	32	5	2	30	11	27	0
1747	9	21	55	8	1	13	11	7	40
B1748	2	1	18	10	29	57	10	18	20
1749	6	23	52	2	11	44	9	28	57
1750	11	3	15	5	10	27	9	9	38
1751	3	12	38	8	9	10	8	20	18
B1752	7	22	1	11	7	53	8	0	58
1753	0	14	34	2	19	40	7	11	35
1754	4	23	57	5	18	23	6	22	16
1755	9	3	20	9	17	16	6	2	56
B1756	1	12	43	11	15	49	5	13	36
1757	0	5	17	2	27	36	4	24	13
1758	10	14	40	5	26	20	4	4	54

A TABLE of the MOON's Mean Motion

Years.	Longit. ☽			Anom. ☽			Node ☽		
	S	o	'	S	o	'	S	o	'
1759	2	24	3	8	25	3	3	15	34
B1760	7	3	26	11	23	46	2	26	14
1761	11	26	0	3	5	33	2	6	51
1762	4	5	23	6	4	16	1	17	32
1763	8	14	46	9	3	0	0	28	12
B1764	0	24	9	0	1	42	0	8	52
1765	5	16	43	3	13	29	11	19	29
1766	9	26	6	6	12	12	11	0	10
1767	2	5	29	9	10	56	10	10	50
B1768	6	14	52	0	9	40	9	21	30
1769	11	7	25	3	21	26	9	2	7
1770	3	16	48	6	20	9	8	12	47
1771	7	26	11	9	18	52	7	23	27
B1772	0	5	34	0	17	35	7	4	8
1773	4	28	8	3	39	22	6	14	45
1774	9	7	31	6	28	5	5	25	25
1775	1	16	54	9	26	48	5	6	6
B1776	5	26	17	0	25	2	4	16	46
1777	10	18	51	4	7	19	3	27	23
1778	2	28	14	7	6	23	3	8	3
1779	7	7	37	10	4	45	2	18	44
B1780	11	17	0	1	3	28	1	29	24
1781	4	9	33	4	15	15	1	10	1
1782	8	18	56	7	13	58	0	20	41
1783	0	28	19	10	12	41	0	1	22
B1784	5	7	42	1	11	24	11	12	2
1785	10	0	16	4	23	12	10	22	49
1786	2	9	39	7	21	55	10	3	19
1787	6	19	2	10	20	38	9	14	0
B1788	10	28	25	1	19	21	8	24	40

Years.	Longit. ☽			Anom. ☽			Node ☽		
	S	o	'	S	o	'	S	o	'
1789	3	20	58	5	1	7	8	5	17
1790	8	0	22	7	29	51	7	15	57
1791	0	9	45	10	28	35	6	26	37
B1792	4	19	8	1	27	18	6	7	18
1793	9	11	41	5	9	45	5	17	55
1794	1	21	4	8	7	47	4	28	35
1795	6	0	27	11	6	30	4	9	15
B1796	10	9	50	2	5	13	3	19	56
1797	3	2	24	5	17	1	3	0	33
1798	7	11	47	8	15	44	2	11	13
1799	11	21	10	11	14	23	1	21	53
B1800	4	0	33	2	13	10	1	2	44
1801	8	23	7	5	24	57	0	13	11
1802	1	2	30	8	23	40	11	23	51
1803	5	11	53	11	22	23	11	4	32
B1804	9	21	16	2	21	6	10	15	12
1805	2	13	50	6	2	54	9	25	49
1806	6	23	13	9	1	37	9	6	29
1807	11	2	36	0	0	20	8	17	10
B1808	3	11	59	2	29	37	7	27	50
1809	8	4	32	6	10	49	7	8	27
1810	0	13	56	9	9	42	6	19	7
1811	4	23	19	0	8	17	5	29	48
B1812	9	2	49	3	7	0	5	10	28
1813	1	25	15	6	18	46	4	21	5
1814	6	4	38	9	17	29	4	1	45
1815	10	14	1	0	16	12	3	12	25
B1816	2	23	24	3	14	55	2	23	6
1817	7	15	58	6	26	43	2	3	43
1818	11	25	21	9	25	26	1	14	27

A TABLE of the MOON's Mean Motion

Com. Years	JANUARY. Longit. ☽ S	o	'	Anom. ☽ S	o	'	Node. o	'	FEBRUARY. Longit. ☽ S	o	'	Anom. ☽ S	o	'	Node. o	'	Bissextile.
1	0	13	11	0	13	4	0	3	2	1	39	1	28	5	1	41	0
2	0	26	21	0	26	8	0	6	2	14	49	2	11	9	1	44	1
3	1	9	32	1	9	12	0	10	2	28	0	2	24	13	1	48	2
4	1	22	42	1	22	15	0	13	3	11	10	3	7	16	1	51	3
5	2	5	53	2	5	19	0	16	3	24	21	3	20	20	1	54	4
6	2	19	4	2	18	23	0	19	4	7	32	4	3	24	1	57	5
7	3	2	14	3	1	27	0	22	4	20	42	4	16	28	2	0	6
8	3	15	24	3	14	31	0	25	5	3	52	4	29	32	2	3	7
9	3	28	35	3	27	35	0	29	5	17	3	5	12	36	2	7	8
10	4	11	46	4	10	39	0	32	6	0	14	5	25	40	2	10	9
11	4	24	56	4	23	43	0	35	6	13	24	6	8	44	2	13	10
12	5	8	7	5	6	47	0	38	6	26	35	6	21	48	2	16	11
13	5	21	18	5	19	51	0	41	7	9	46	7	4	52	2	19	12
14	6	4	28	6	2	55	0	44	7	22	56	7	17	56	2	22	13
15	6	17	39	6	15	59	0	47	8	6	7	8	1	0	2	25	14
16	7	0	49	6	29	2	0	51	8	19	17	8	14	3	2	28	15
17	7	14	0	7	12	6	0	54	9	2	28	8	27	7	2	32	16
18	7	27	10	7	25	10	0	57	9	15	38	9	10	11	2	35	17
19	8	10	21	8	8	14	1	0	9	28	49	9	23	15	2	38	18
20	8	23	32	8	21	18	1	4	10	12	0	10	6	19	2	42	19
21	9	6	42	9	4	22	1	7	10	25	10	10	19	23	2	45	20
22	9	19	53	9	17	26	1	10	11	8	21	11	2	27	2	48	21
23	10	3	3	10	0	30	1	13	11	21	31	11	15	31	2	51	22
24	10	16	14	10	13	34	1	16	0	4	42	11	28	35	2	54	23
25	10	29	25	10	26	38	1	19	0	17	53	0	11	39	2	57	24
26	11	12	35	11	9	42	1	23	1	1	3	0	24	43	3	1	25
27	11	25	46	11	22	46	1	26	1	14	14	1	7	47	3	4	26
28	0	8	56	0	5	49	1	29	1	27	24	1	20	50	3	7	27
29	0	22	7	0	18	53	1	32	2	10	34	2	3	54	3	10	28
30	1	5	18	1	1	57	1	35	0	0	0	0	0	0	0	0	29
31	1	18	28	1	15	1	1	38	0	0	0	0	0	0	0	0	30

A TABLE of the MOON's Mean Motion

Com. Years	MARCH. Longit. ☽ S o '	Anom. ☽ S o '	Node. o '	APRIL. Longit. ☽ S o '	Anom. ☽ S o '	Node. o '	Biſſextile.
1	2 15 35	2 5 54	3 10	3 26 3	3 18 55	4 49	0
2	2 23 45	2 16 58	3 13	4 12 14	4 1 59	4 52	1
3	3 6 56	3 0 2	3 17	4 25 25	4 15 3	4 56	2
4	3 20 6	3 13 5	3 20	5 8 35	4 28 6	4 59	3
5	4 5 17	3 26 9	3 23	5 21 46	5 11 10	5 2	4
6	4 16 28	4 9 14	3 26	6 4 57	5 24 14	5 5	5
7	4 29 38	4 22 17	3 29	6 18 7	6 7 18	5 8	6
8	5 12 49	5 5 21	3 32	7 1 18	6 20 22	5 11	7
9	5 25 59	5 18 25	3 36	7 14 28	7 3 26	5 15	8
10	6 9 10	6 1 29	3 39	7 27 39	7 16 30	5 18	9
11	6 22 20	6 14 33	3 42	8 10 49	7 29 34	5 21	10
12	7 5 31	6 27 37	3 45	8 24 0	8 12 38	5 24	11
13	7 18 42	7 10 41	3 48	9 7 11	8 25 42	5 27	12
14	8 1 52	7 23 45	3 51	9 20 21	9 8 46	5 30	13
15	8 15 3	8 6 49	3 54	10 3 32	9 21 50	5 33	14
16	8 28 13	8 19 52	3 58	10 16 42	10 4 53	5 37	15
17	9 11 24	9 2 56	4 1	10 29 53	10 17 57	5 40	16
18	9 24 34	9 16 0	4 4	11 13 3	11 1 1	5 43	17
19	10 7 45	9 29 4	4 7	11 26 14	11 14 5	5 46	18
20	10 20 56	10 12 8	4 11	0 9 25	11 27 9	5 50	19
21	11 4 6	10 25 12	4 14	0 22 35	0 10 13	5 53	20
22	11 17 17	11 8 16	4 17	1 5 46	0 23 17	5 56	21
23	0 0 27	11 21 20	4 20	1 18 56	1 6 21	5 59	22
24	0 13 38	0 4 24	4 23	2 2 7	1 19 25	6 2	23
25	0 26 49	0 17 28	4 26	2 15 18	2 2 29	6 5	24
26	1 9 59	1 0 32	4 30	2 28 28	2 15 33	6 9	25
27	1 23 10	1 13 36	4 33	3 11 37	2 28 37	6 12	26
28	2 6 20	1 26 39	4 36	3 24 49	3 11 40	6 15	27
29	2 19 31	2 9 43	4 39	4 8 0	3 24 44	6 18	28
30	3 2 42	2 22 47	4 42	4 21 10	4 7 48	6 21	29
31	3 15 52	3 5 51	4 45	0 0 0	0 0 0	0 0	30

The MOON's Mean Motion.

Com. Years	MAY. Longit. ☽.	MAY. Anom. ☽.	MAY. Node.	JUNE. Longit. ☽.	JUNE. Anom. ☽.	JUNE. Node.	Bissextile
	S o ′	S o ′	o ′	S o ′	S o ′	o ′	
1	5 4 21	4 20 52	6 24	6 22 49	6 5 53	8 3	0
2	5 17 31	5 3 56	6 27	7 5 59	6 18 57	8 6	1
3	6 0 42	5 17 0	6 31	7 19 10	7 2 1	8 10	2
4	6 13 52	6 0 3	6 34	8 2 20	7 15 4	8 13	3
5	6 27 3	6 13 7	6 37	8 15 31	7 28 8	8 16	4
6	7 10 14	6 26 11	6 40	8 28 42	8 11 12	8 19	5
7	7 23 24	7 9 15	6 43	9 11 52	8 24 16	8 22	6
8	8 6 35	7 22 19	6 46	9 25 2	9 7 20	8 25	7
9	8 19 45	8 5 23	6 50	10 8 13	9 20 24	8 29	8
10	9 2 56	8 18 27	6 53	10 21 24	10 3 28	8 32	9
11	9 16 6	9 1 31	6 56	11 4 34	10 16 32	8 35	10
12	9 29 17	9 14 35	6 59	11 17 45	10 29 36	8 38	11
13	10 12 28	9 27 39	7 2	0 0 56	11 12 40	8 41	12
14	10 25 38	10 10 43	7 5	0 14 6	11 25 44	8 44	13
15	11 8 49	10 23 47	7 8	0 27 17	0 8 48	8 47	14
16	11 21 59	11 6 50	7 12	1 10 27	0 21 51	8 51	15
17	0 5 10	11 19 54	7 15	1 23 38	1 4 55	8 54	16
18	0 18 20	0 2 58	7 18	2 6 48	1 17 59	8 57	17
19	1 1 31	0 16 2	7 21	2 19 59	2 1 3	9 0	18
20	1 14 42	0 29 6	7 25	3 3 10	2 14 7	9 4	19
21	1 27 52	1 12 10	7 28	3 16 20	2 27 11	9 7	20
22	2 11 3	1 25 14	7 31	3 29 31	3 10 15	9 10	21
23	2 24 13	2 8 18	7 34	4 12 41	3 23 19	9 13	22
24	3 7 24	2 21 22	7 37	4 25 52	4 6 23	9 16	23
25	3 20 35	3 4 26	7 40	5 9 3	4 19 27	9 19	24
26	4 3 45	3 17 30	7 44	5 22 13	5 2 31	9 23	25
27	4 16 56	4 0 34	7 47	6 5 24	5 15 35	9 26	26
28	5 0 6	4 13 37	7 50	6 18 34	5 28 38	9 29	27
29	5 13 17	4 26 41	7 53	7 1 45	6 11 42	9 32	28
30	5 26 28	5 9 45	7 56	7 14 56	6 24 46	9 34	29
31	6 9 38	5 22 49	8 0	7 28 7	7 7 50	9 38	30

The MOON's Mean Motion.

Com. Years	JULY. Longit. ☽. S o ′	JULY. Anom. ☽. S o ′	JULY. Node. o ′	AUGUST. Longit. ☽. S o ′	AUGUST. Anom. ☽ S o ′	AUGUST. Node. o ′	Biſſextile
1	7 28 7	7 7 50	9 38	9 16 35	8 22 51	11 17	0
2	8 11 17	7 20 54	9 41	9 29 45	9 5 55	11 20	1
3	8 24 28	8 3 58	9 45	10 12 56	9 18 59	11 24	2
4	9 7 38	8 17 1	9 48	10 26 6	10 2 2	11 27	3
5	9 20 49	9 0 5	9 51	11 9 17	10 15 6	11 30	4
6	10 4 0	9 13 9	9 54	11 22 28	10 28 10	11 33	5
7	10 17 10	9 26 13	9 57	0 5 38	11 11 14	11 36	6
8	11 0 20	11 9 17	10 0	0 18 48	11 24 18	11 39	7
9	11 13 31	10 22 21	10 4	1 1 59	0 7 22	11 43	8
10	11 26 42	11 5 25	10 7	1 15 10	0 20 26	11 46	9
11	0 9 52	11 18 29	10 10	1 28 20	1 3 30	11 49	10
12	0 23 3	0 1 33	10 13	2 11 31	1 16 34	11 52	11
13	1 6 14	0 14 37	10 16	2 24 42	1 29 38	11 55	12
14	1 19 24	0 27 41	10 19	3 7 52	2 12 42	11 58	13
15	2 2 35	1 10 45	10 22	3 21 3	2 25 46	12 1	14
16	2 15 45	1 23 48	10 26	4 4 13	3 8 49	12 5	15
17	2 28 56	2 6 52	10 29	4 17 24	3 21 53	12 8	16
18	3 12 6	2 19 56	10 32	5 0 34	4 4 57	12 11	17
19	3 25 17	3 3 0	10 35	5 13 45	4 18 1	12 14	18
20	4 8 28	3 16 4	10 39	5 26 56	5 1 5	12 18	19
21	4 21 38	3 29 8	10 42	6 10 6	5 14 9	12 21	20
22	5 4 49	4 12 12	10 45	6 23 17	5 27 13	12 24	21
23	5 17 59	4 25 16	10 48	7 6 27	6 10 17	12 27	22
24	6 1 10	5 8 20	10 51	7 19 38	6 23 21	12 30	23
25	6 14 21	5 21 24	10 54	8 2 49	7 6 25	12 33	24
26	6 27 31	6 4 28	10 58	8 15 59	7 19 29	12 37	25
27	7 10 42	6 17 32	11 1	8 29 10	8 2 33	12 40	26
28	7 23 50	7 0 35	11 4	9 12 20	8 15 36	12 43	27
29	8 7 3	7 13 39	11 7	9 25 31	8 28 40	12 46	28
30	8 20 14	7 26 43	11 10	10 8 41	9 11 44	12 49	29
31	9 3 24	8 9 47	11 14	10 21 52	9 24 48	12 52	30

The MOON's Mean Motion.

Com. Years	SEPTEMBER. Longit. ☽. S	o	′	Anom. ☽. S	o	′	Node. o	′	OCTOBER. Longit. ☽. S	o	′	Anom. ☽. S	o	′	Node. o	′	Biſſextile
1	11	5	2	10	7	51	12	55	0	10	20	11	9	48	14	30	0
2	11	18	12	10	20	55	12	58	0	23	30	11	22	52	14	33	1
3	0	1	23	11	3	59	13	2	1	6	41	0	5	56	14	37	2
4	0	14	33	11	17	2	13	5	1	19	51	0	18	59	14	40	3
5	0	27	44	0	0	6	13	8	2	3	2	1	2	3	14	43	4
6	0	10	55	0	13	10	13	11	2	16	13	1	15	7	14	46	5
7	1	24	5	0	26	14	13	14	2	29	23	1	28	11	14	49	6
8	2	7	16	1	9	18	13	17	3	12	34	2	11	15	14	52	7
9	2	20	26	1	22	22	13	21	3	25	44	2	24	19	14	56	8
10	3	3	37	2	5	26	13	24	4	8	55	3	7	23	14	59	9
11	3	16	47	2	18	30	13	27	4	22	5	3	20	27	15	2	10
12	3	29	58	3	1	34	13	30	5	5	16	4	3	31	15	5	11
13	4	13	9	3	14	38	13	33	5	18	27	4	16	35	15	8	12
14	4	26	19	3	27	42	13	36	6	1	37	4	29	39	15	11	13
15	5	9	30	4	10	46	13	39	6	14	48	5	12	43	15	14	14
16	5	22	40	4	23	49	13	43	6	27	58	5	25	46	15	18	15
17	6	5	51	5	16	5	13	46	7	11	9	6	8	50	15	21	16
18	6	19	1	5	29	9	13	49	7	24	19	6	21	54	15	24	17
19	7	2	12	6	3	1	13	52	8	7	30	7	4	58	15	27	18
20	7	15	23	6	16	5	13	56	8	20	41	7	18	2	15	31	19
21	7	28	33	6	29	9	13	59	9	3	51	8	1	6	15	34	20
22	8	11	44	7	12	13	14	2	9	17	2	8	14	10	15	37	21
23	8	24	54	7	25	17	14	5	10	0	12	8	27	14	15	40	22
24	9	8	5	8	8	21	14	8	10	13	23	9	10	18	15	43	23
25	9	21	16	8	21	25	14	11	10	26	34	9	23	22	15	46	24
26	10	4	26	9	4	29	14	15	11	9	44	10	6	26	15	50	25
27	10	17	37	9	17	33	14	18	11	22	55	10	19	30	15	53	26
28	11	0	47	10	0	36	14	21	0	6	5	11	2	33	15	56	27
29	11	13	58	10	13	40	14	24	0	19	16	11	15	37	15	59	28
30	11	27	9	10	26	44	14	27	1	2	27	11	28	41	16	2	29
31	0	10	20	11	9	48	14	30	1	15	37	0	11	45	16	6	30

The MOON's Mean Motion in Months and Days.

Com. Years	NOVEMBER.									DECEMBER.									Bissextile
	Longit. ☽.			Anom. ☽.			Node.			Longit. ☽.			Anom. ☽			Node.			
	S	o	′	S	o	′	o	′		S	o	′	S	o	′	☊	′		
1	1	28	48	0	24	49	16	9		3	4	6	1	26	46	17	44		0
2	2	11	58	1	7	53	16	12		3	17	16	2	9	50	17	47		1
3	2	25	9	1	20	57	16	16		4	0	27	2	22	54	17	52		2
4	3	8	19	2	4	0	16	19		4	13	37	3	5	57	17	54		3
5	3	21	30	2	17	4	16	22		4	26	48	3	19	1	17	57		4
6	4	4	41	3	0	8	16	25		5	9	59	4	2	5	18	0		5
7	4	17	51	3	13	12	16	28		5	23	9	4	15	9	18	3		6
8	5	1	1	3	26	16	16	31		6	6	20	4	28	13	18	6		7
9	5	14	12	4	9	20	16	35		6	19	30	5	11	17	18	10		8
10	5	27	23	4	22	24	16	38		7	2	41	5	24	21	18	13		9
11	6	10	33	5	5	28	16	41		7	15	51	6	7	25	18	16		10
12	6	23	44	5	18	32	16	44		7	29	2	6	20	39	18	19		11
13	7	6	55	6	1	36	16	47		8	12	13	7	3	33	18	22		12
14	7	20	5	6	14	40	16	50		8	25	23	7	16	37	18	25		13
15	8	3	16	6	27	44	16	53		9	8	34	7	29	41	18	28		14
16	8	16	26	7	10	47	16	57		9	21	44	8	12	44	18	32		15
17	8	29	37	7	23	51	17	0		10	4	55	8	25	48	18	35		16
18	9	12	47	8	6	55	17	3		10	18	5	9	8	52	18	38		17
19	9	25	58	8	19	59	17	6		11	1	16	9	21	56	18	41		18
20	10	9	9	9	3	3	17	10		11	14	27	10	5	0	18	45		19
21	10	22	19	9	16	7	17	13		11	27	37	10	18	4	18	48		20
22	11	5	30	9	29	11	17	16		0	10	48	11	1	8	18	51		21
23	11	18	40	10	12	15	17	19		0	23	58	11	14	12	18	54		22
24	0	1	51	10	25	19	17	22		1	7	9	11	27	16	18	57		23
25	0	15	2	11	8	23	17	25		1	20	20	0	10	20	19	0		24
26	0	28	12	11	21	27	17	29		2	3	30	0	23	24	19	4		25
27	1	11	23	0	4	31	17	32		2	16	41	1	6	28	19	7		26
28	1	24	33	0	17	34	17	35		2	29	51	1	19	31	19	10		27
29	2	7	44	1	0	38	17	38		3	13	2	2	2	35	19	13		28
30	2	20	55	1	13	42	17	41		3	26	13	2	15	39	19	16		29
31	3	4	6	1	26	46	17	44		4	9	23	2	28	43	19	19		30

The Moon's Mean Motion, in Hours, Minutes, and Seconds.

H.	Longit. ☽.			Anom. ☽.			Node.		H.	Longit. ☽.			Anom. ☽.			Node.	
′	o	′	″	o	′	″	′	″	′	o	′	″	o	′	″	′	″
1	0	32	56	0	32	39	0	8	31	17	1	10	16	52	32	4	6
2	1	5	53	1	5	20	0	16	32	17	34	7	17	25	13	4	14
3	1	38	49	1	37	59	0	24	33	18	7	3	17	57	52	4	22
4	2	11	46	2	10	39	0	32	34	18	39	59	18	0	31	4	30
5	2	44	42	2	43	18	0	40	35	19	12	55	19	3	11	4	38
6	3	17	39	3	15	59	0	48	36	19	45	52	19	5	50	4	46
7	3	50	35	3	48	38	0	56	37	20	18	48	20	8	29	4	54
8	4	23	32	4	21	18	1	4	38	20	51	45	20	11	9	5	2
9	4	56	28	4	53	58	1	12	39	21	24	41	21	13	59	5	10
10	5	29	25	5	26	38	1	19	40	21	57	38	21	46	30	5	18
11	6	2	21	5	59	17	1	27	41	22	30	34	22	19	9	5	26
12	6	35	18	6	31	57	1	35	42	23	3	31	22	51	49	5	34
13	7	8	14	7	4	47	1	43	43	23	36	27	23	24	28	5	42
14	7	41	10	7	37	16	1	51	44	24	9	24	23	57	8	5	50
15	8	14	7	8	9	56	1	59	45	24	42	20	24	29	48	5	58
16	8	47	3	8	42	36	2	7	46	25	15	17	25	2	29	6	6
17	9	20	0	9	15	16	2	15	47	25	48	13	25	25	6	6	14
18	9	52	56	9	47	55	2	23	48	26	21	10	26	7	48	6	22
19	10	25	53	10	20	35	2	31	49	26	54	6	26	40	27	6	30
20	10	58	49	10	53	15	2	39	50	27	27	3	27	13	7	6	38
21	11	31	46	11	25	55	2	47	51	27	59	59	27	45	46	6	46
22	12	4	42	11	58	34	2	55	52	28	32	56	28	18	26	6	54
23	12	37	39	12	31	15	3	3	53	29	5	52	28	51	6	7	1
24	13	10	35	13	3	54	3	11	54	29	38	49	29	23	47	7	8
25	13	43	32	13	36	34	3	19	55	30	11	45	29	56	26	7	16
26	14	16	28	14	9	13	3	27	56	30	44	42	30	29	6	7	24
27	14	49	25	14	41	54	3	34	57	31	17	38	31	1	45	7	32
28	15	22	21	15	14	33	3	42	58	31	50	34	31	34	24	7	40
29	15	55	17	15	47	12	3	50	59	32	23	31	32	7	5	7	48
30	16	28	14	16	19	15	3	58	60	32	56	27	32	39	44	7	56
31	′	″	‴	′	″	‴	″	‴	″	′	″	‴	″	″	‴	″	‴

A TABLE of the MOON's Equation.

Degrees.	Sig. 0. Equa. Sub. ° ′ ″	Logar.	Sig. 1. Equa. Sub. ° ′ ″	Logar.	Sig. 2. Equa. Sub. ° ′ ″	Logar.	Degrees.
0	0 0 0	362572	2 24 35	362349	4 13 16	361720	30
1	0 5 2	362572	2 28 59	362334	4 15 55	361694	29
2	0 10 4	362571	2 33 20	362319	4 18 29	361661	28
3	0 15 5	362570	2 37 38	362303	4 20 58	361639	27
4	0 20 6	362568	2 41 54	362287	4 23 22	361612	26
5	0 25 7	362566	2 46 7	362270	4 25 42	361584	25
6	0 30 7	362564	2 50 17	362252	4 27 58	361556	24
7	0 35 6	362561	2 54 25	362235	4 30 9	361528	23
8	0 40 5	362557	2 58 29	362216	4 32 15	361499	22
9	0 45 4	362552	3 2 36	362198	4 34 15	361470	21
10	0 50 2	362546	3 6 28	362180	4 36 10	361440	20
11	0 54 59	362541	3 10 23	362161	4 38 2	361410	19
12	0 59 55	362536	3 14 16	362142	4 39 49	361380	18
13	1 4 50	362530	3 18 5	362121	4 41 31	361350	17
14	1 9 44	362523	3 21 50	362101	4 43 7	361320	16
15	1 14 37	362516	3 25 31	362080	4 44 38	361290	15
16	1 19 29	362508	3 29 8	362059	4 46 4	361259	14
17	1 24 20	362500	3 32 42	362037	4 47 25	361228	13
18	1 29 9	362491	3 36 13	362015	4 48 40	361197	12
19	1 33 56	362481	3 39 40	361992	4 49 51	361166	11
20	1 38 41	362472	3 43 3	361969	4 50 57	361135	10
21	1 43 24	362462	3 46 23	361946	4 51 58	361104	9
22	1 48 6	362452	3 49 39	361923	4 52 53	361072	8
23	1 52 47	362441	3 52 51	361898	4 53 44	361040	7
24	1 57 27	362429	3 50 59	361874	4 54 30	361008	6
25	2 2 4	362417	3 59 2	361849	4 55 9	360976	5
26	2 6 38	362404	4 2 1	361824	4 55 43	360944	4
27	2 11 11	362391	4 4 56	361799	4 56 11	360911	3
28	2 15 41	362377	4 7 46	361774	4 56 34	360878	2
29	2 20 9	362363	4 10 32	361747	4 56 51	360846	1
30	2 24 35	362349	4 13 16	361720	4 57 3	360813	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of the MOON's Equation.

Degrees.	Sig. 3. Equa. Sub. ° ′ ″	Logar.	Sig. 4. Equa. Sub. ° ′ ″	Logar.	Sig. 5. Equa. Sub. ° ′ ″	Logar.	Degrees.
0	4 57 3	360813	4 21 26	359847	2 32 48	359098	30
1	4 57 12	360780	4 18 52	359817	2 28 13	359081	29
2	4 57 14	360748	4 16 13	359788	2 23 35	359064	28
3	4 57 11	860715	4 13 31	359758	2 18 53	359047	27
4	4 57 1	360685	4 10 45	359729	2 14 8	359031	26
5	4 56 45	360650	4 7 53	359700	2 9 20	359016	25
6	4 56 24	360617	4 4 56	359672	2 4 30	359001	24
7	4 55 58	360584	4 1 54	359643	1 59 38	359086	23
8	4 55 28	360551	3 58 48	359615	1 54 43	359072	22
9	4 54 52	360518	3 55 37	359587	1 49 46	358958	21
10	4 54 10	360485	3 52 21	359559	1 44 46	358945	20
11	4 53 23	360453	3 49 0	359532	1 39 44	358932	19
12	4 52 30	360420	3 45 35	359506	1 34 41	358920	18
13	4 51 31	360387	3 42 6	359479	1 29 36	358901	17
14	4 50 27	360354	3 38 34	359453	1 24 29	358898	16
15	4 49 19	360321	3 34 57	359427	1 19 21	358888	15
16	4 48 5	360289	3 31 15	359402	1 14 12	358879	14
17	4 46 45	360256	3 27 29	359378	1 9 0	358870	13
18	4 45 20	360224	3 23 39	359353	1 3 47	358862	12
19	4 43 50	360191	3 19 45	359329	0 58 33	358855	11
20	4 42 15	360159	3 15 46	359306	0 53 18	358848	10
21	4 40 33	360127	3 11 43	359283	0 48 1	358842	9
22	4 38 46	360095	3 7 37	359261	0 42 43	358837	8
23	4 36 54	360063	3 3 28	359239	0 37 24	358832	7
24	4 34 57	360032	2 59 15	359218	0 32 5	358828	6
25	4 32 55	360001	2 54 59	359197	0 26 45	358825	5
26	4 30 48	359970	2 50 40	359176	0 21 25	358822	4
27	4 28 35	359939	2 46 17	359156	0 16 4	358820	3
28	4 26 17	359908	2 41 50	359136	0 10 42	358818	2
29	4 23 53	359877	2 37 20	359117	0 5 21	358817	1
30	4 21 26	359847	2 32 48	359098	0 0 0	358816	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of the MOON's Reflection, and Logarithm of the Chord of Evection.

Degrees.	Sig. 9. Sig. 6. Reflecti. ′ ″	Add. Subſtr. Log. Ch. Evection	Sig. 1. Sig. 7. Reflecti. ′ ″	Add. Subſtr. Log. Ch. Evection	Sig. 2. Sig. 8. Reflecti. ′ ″	Add. Subſtr. Log. Ch. Evection	Degrees.
0	0 0	000000	20 15	194201	35 4	218017	30
1	0 43	048489	20 51	195487	35 25	218485	29
2	1 26	078586	21 27	196724	35 45	218898	28
3	2 8	096184	22 3	197914	36 5	219272	27
4	2 50	108662	22 38	199060	36 [illegible]	219670	26
5	3 32	118333	23 13	200163	36 42	220031	25
6	4 14	126224	23 48	201225	37 0	220377	24
7	4 56	132893	24 22	202250	37 17	220706	23
8	5 38	138659	24 56	203238	37 33	221020	22
9	6 20	143737	25 29	204191	37 48	221319	21
10	6 53	148271	26 2	205110	38 3	221602	20
11	7 44	152363	26 34	205998	38 17	221871	19
12	8 26	156091	27 6	206855	38 30	222124	18
13	9 7	159512	27 39	207682	38 42	222363	17
14	9 48	162671	28 8	208481	38 55	222588	16
15	10 29	165604	28 38	209252	39 7	222798	15
16	11 10	168337	29 8	209997	39 18	222994	14
17	11 51	170897	29 37	210716	39 28	223176	13
18	12 31	173302	30 6	211411	39 37	223344	12
19	13 11	175568	30 34	212081	39 45	223498	11
20	13 51	177709	31 1	212729	39 53	223639	10
21	14 31	179736	31 28	213354	40 0	223765	9
22	15 10	181662	31 55	213957	40 6	223879	8
23	15 49	183491	32 21	214538	40 12	223979	7
24	16 28	185235	32 46	215099	40 17	224065	6
25	17 7	186899	33 11	215640	40 21	224138	5
26	17 45	188488	33 35	216161	40 25	224198	4
27	18 23	190009	33 58	216663	40 27	224244	3
28	19 1	191465	34 21	217146	40 28	224277	2
29	19 38	192861	34 43	217610	40 29	224297	1
30	20 15	194201	35 4	218057	40 30	224304	0
	Sig. 5. Sig. 11.	Add. Subſtr.	Sig. 4. Sig. 10.	Add. Subſtr.	Sig. 3. Sig. 9.	Add. Subſtr.	

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly.	630000	640000	650000	660000	670000	680000	690000	700000	710000	Synodical Anomaly.
S. G.	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	G. S.
0. 00	00	00	00	00	00	00	00	00	00	0. 12
5 0	00	00	00	00	00	00	00	00	0 25	
10 0	00	00	00	00	00	00	00	1 0	1 20	
15 0	00	00	00	00	00	10	10	10	1 15	
20 0	00	00	00	00	10	10	10	10	1 10	
25 0	00	00	00	10	10	10	10	10	2 5	
1. 00	00	00	10	10	10	10	10	20	2	0. 11
5 0	00	00	10	10	10	10	10	20	2 25	
10 0	00	00	10	10	10	10	20	20	3 20	
15 0	00	10	10	10	10	10	20	20	3 15	
20 0	00	10	10	10	10	20	20	30	3 10	
25 0	10	10	10	10	10	20	20	30	4 5	
2. 00	10	10	10	10	10	20	20	30	4	0. 10
5 0	10	10	10	10	10	20	20	30	4 25	
10 0	10	10	10	10	20	20	20	30	4 20	
15 0	10	10	10	10	20	20	30	30	4 15	
20 0	10	10	10	10	20	20	30	30	4 10	
25 0	10	10	10	10	20	20	30	30	4 5	
3. 00	10	10	10	10	20	20	30	30	4	0. 9
5 0	10	10	10	10	20	20	30	30	4 25	
10 0	10	10	10	10	20	20	30	30	4 20	
15 0	10	10	10	10	20	20	30	30	4 15	
20 0	10	10	10	10	10	20	20	30	4 10	
25 0	10	10	10	10	10	20	20	30	4 5	
4. 00	10	10	10	10	10	20	20	30	4	0. 8
5 0	10	10	10	10	10	20	20	30	4 25	
10 0	00	10	10	10	10	20	20	30	3 20	
15 0	00	10	10	10	10	10	20	20	3 15	
20 0	00	00	10	10	10	10	20	20	3 10	
25 0	00	00	10	10	10	10	20	20	2 5	
5. 00	00	00	10	10	10	10	10	20	2	0. 7
5 0	00	00	00	10	10	10	10	10	2 25	
10 0	00	00	00	00	10	10	10	10	1 20	
15 0	00	00	00	00	00	10	10	10	1 15	
20 0	00	00	00	00	00	00	00	10	1 10	
25 0	00	00	00	00	00	00	00	00	0 5	
6. 00	00	00	00	00	00	00	00	00	00	0. 6

A TABLE of the Moon's Evection. Subſtract

Numerus Logarithmicus.

Synodical Anomaly.	720000	730000	740000	750000	760000	770000	780000	790000	800000	Synodical Anomaly.
S. G.	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	G. S.
0. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5 0	0 0	1 0	1 0	1 0	1 0	1 0	2 0	2 0	3	25
10 0	1 0	1 0	1 0	2 0	2 0	3 0	4 0	5 0	6	20
15 0	1 0	2 0	2 0	3 0	3 0	4 0	6 0	7 0	9	15
20 0	2 0	2 0	3 0	4 0	5 0	6 0	7 0	9 0	12	10
25 0	2 0	3 0	4 0	5 0	6 0	7 0	9 0	11 0	14	5
1. 0 0	3 0	3 0	4 0	5 0	7 0	9 0	11 0	13 0	17	0. 11
5 0	3 0	4 0	5 0	6 0	8 0	10 0	12 0	15 0	19	25
10 0	3 0	4 0	6 0	7 0	9 0	11 0	14 0	17 0	22	20
15 0	4 0	5 0	6 0	8 0	10 0	12 0	15 0	19 0	24	15
20 0	4 0	5 0	7 0	8 0	10 0	13 0	16 0	21 0	26	10
25 0	4 0	6 0	7 0	9 0	11 0	14 0	18 0	22 0	28	5
2. 0 0	5 0	6 0	7 0	9 0	12 0	15 0	19 0	24 0	30	0. 10
5 0	5 0	6 0	8 0	10 0	12 0	16 0	20 0	25 0	31	25
10 0	5 0	6 0	8 0	10 0	13 0	16 0	20 0	26 0	32	20
15 0	5 0	7 0	8 0	10 0	13 0	17 0	21 0	26 0	33	15
20 0	5 0	7 0	8 0	11 0	13 0	17 0	21 0	27 0	34	10
25 0	5 0	7 0	9 0	11 0	14 0	17 0	22 0	27 0	34	5
3. 0 0	5 0	7 0	9 0	11 0	14 0	17 0	22 0	27 0	34	0. 9
5 0	5 0	7 0	9 0	11 0	14 0	17 0	22 0	27 0	34	25
10 0	5 0	7 0	8 0	11 0	13 0	17 0	21 0	27 0	34	20
15 0	5 0	7 0	8 0	10 0	13 0	17 0	21 0	26 0	33	15
20 0	5 0	6 0	8 0	10 0	13 0	16 0	20 0	26 0	32	10
25 0	5 0	6 0	8 0	10 0	12 0	16 0	20 0	25 0	31	5
4. 0 0	5 0	6 0	7 0	9 0	12 0	15 0	19 0	24 0	30	0. 8
5 0	4 0	6 0	7 0	9 0	11 0	14 0	18 0	22 0	28	25
10 0	4 0	5 0	7 0	8 0	10 0	13 0	17 0	21 0	26	20
15 0	4 0	5 0	6 0	8 0	10 0	12 0	15 0	19 0	24	15
20 0	3 0	4 0	6 0	7 0	9 0	11 0	14 0	18 0	22	10
25 0	3 0	4 0	5 0	6 0	8 0	10 0	12 0	16 0	20	5
5. 0 0	3 0	3 0	4 0	5 0	7 0	9 0	11 0	14 0	17	0. 7
5 0	2 0	3 0	4 0	5 0	6 0	7 0	9 0	12 0	15	25
10 0	2 0	2 0	3 0	4 0	5 0	6 0	7 0	10 0	12	20
15 0	1 0	2 0	2 0	3 0	4 0	4 0	6 0	8 0	9	15
20 0	1 0	1 0	1 0	2 0	2 0	3 0	4 0	5 0	6	10
25 0	0 0	1 0	1 0	1 0	1 0	1 0	2 0	2 0	3	5
6. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

Add

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly. S. G.	801000	802000	803000	804000	805000	806000	807000	808000	809000	Synodical Anomaly. G. S.
	o ′	o ′	o ′	o ′	o ′	o ′	o ′	o ′	o ′	
0. 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5	3 0	3 0	3 0	3 0	3 0	3 0	3 0	4 0	4	25
10	6 0	6 0	6 0	6 0	7 0	7 0	7 0	7 0	7	20
15	9 0	9 0	9 0	10 0	10 0	10 0	10 0	10 0	11	15
20	12 0	12 0	12 0	13 0	13 0	13 0	14 0	14 0	14	10
25	15 0	15 0	15 0	16 0	16 0	16 0	17 0	17 0	18	5
1. 0	17 0	18 0	18 0	19 0	19 0	19 0	20 0	20 0	21	0. 11
5	20 0	20 0	21 0	21 0	22 0	22 0	23 0	23 0	24	25
10	22 0	23 0	23 0	24 0	25 0	25 0	26 0	26 0	27	20
15	25 0	25 0	26 0	27 0	27 0	28 0	28 0	29 0	30	15
20	27 0	27 0	28 0	29 0	29 0	30 0	31 0	31 0	32	10
25	28 0	29 0	30 0	31 0	31 0	32 0	33 0	34 0	34	5
2. 0	30 0	31 0	32 0	32 0	33 0	34 0	35 0	35 0	36	0. 10
5	32 0	32 0	33 0	34 0	35 0	35 0	36 0	37 0	38	25
10	33 0	34 0	34 0	35 0	36 0	37 0	38 0	39 0	40	20
15	34 0	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41	15
20	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41 0	42	10
25	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41 0	42	5
3. 0	35 0	36 0	37 0	38 0	39 0	39 0	40 0	41 0	42	0. 9
5	35 0	36 0	37 0	37 0	39 0	39 0	40 0	41 0	42	25
10	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41 0	42	20
15	34 0	35 0	36 0	36 0	37 0	38 0	39 0	40 0	41	15
20	33 0	34 0	35 0	35 0	36 0	37 0	38 0	39 0	40	10
25	32 0	32 0	34 0	34 0	35 0	36 0	37 0	38 0	38	5
4. 0	31 0	31 0	32 0	33 0	34 0	34 0	35 0	36 0	37	0. 8
5	29 0	30 0	30 0	31 0	32 0	32 0	33 0	34 0	35	25
10	27 0	28 0	28 0	29 0	30 0	30 0	31 0	32 0	33	20
15	25 0	26 0	26 0	27 0	27 0	28 0	29 0	29 0	30	15
20	23 0	23 0	24 0	25 0	25 0	25 0	26 0	27 0	27	10
25	20 0	21 0	21 0	22 0	22 0	23 0	23 0	24 0	24	5
5. 0	18 0	18 0	18 0	19 0	20 0	20 0	20 0	21 0	21	0. 7
5	15 0	15 0	15 0	16 0	16 0	17 0	17 0	18 0	18	25
10	12 0	12 0	12 0	13 0	13 0	14 0	14 0	14 0	15	20
15	9 0	9 0	9 0	10 0	10 0	10 0	11 0	11 0	11	15
20	6 0	6 0	6 0	6 0	7 0	7 0	7 0	7 0	7	10
25	3 0	3 0	3 0	3 0	3 0	3 0	4 0	4 0	4	5
6. 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly.	810000	811000	812000	813000	814000	815000	816000	817000	818000	Synodical Anomaly.
S. G.	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	G. S.
0. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4	25
10 0	7 0	8 0	8 0	8 0	8 0	8 0	8 0	9 0	9	20
15 0	11 0	11 0	12 0	12 0	12 0	12 0	13 0	13 0	13	15
20 0	15 0	15 0	15 0	16 0	16 0	16 0	17 0	17 0	17	10
25 0	18 0	18 0	19 0	19 0	20 0	20 0	21 0	21 0	22	5
1. 0 0	21 0	22 0	22 0	23 0	23 0	24 0	24 0	25 0	26	0. 11
5 0	24 0	25 0	26 0	26 0	27 0	27 0	28 0	29 0	29	25
10 0	27 0	28 0	29 0	29 0	30 0	31 0	32 0	32 0	33	20
15 0	30 0	31 0	32 0	32 0	33 0	34 0	35 0	35 0	36	15
20 0	33 0	34 0	34 0	35 0	36 0	37 0	38 0	38 0	39	10
25 0	35 0	36 0	37 0	38 0	38 0	39 0	40 0	41 0	42	5
2. 0 0	37 0	38 0	39 0	40 0	41 0	42 0	43 0	44 0	45	0. 10
5 0	39 0	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47	25
10 0	41 0	41 0	42 0	43 0	44 0	45 0	47 0	48 0	49	20
15 0	42 0	42 0	43 0	44 0	46 0	47 0	48 0	49 0	50	15
20 0	43 0	43 0	44 0	45 0	47 0	48 0	49 0	50 0	51	10
25 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	50 0	52	5
3. 0 0	43 0	44 0	45 0	46 0	47 0	48 0	50 0	51 0	52	0. 9
5 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	51 0	52	25
10 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	50 0	51	20
15 0	42 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	50	15
20 0	41 0	42 0	43 0	44 0	45 0	46 0	47 0	48 0	49	10
25 0	39 0	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47	5
4. 0 0	38 0	38 0	39 0	40 0	41 0	42 0	43 0	44 0	45	0. 8
5 0	36 0	36 0	37 0	38 0	39 0	40 0	41 0	42 0	43	25
10 0	33 0	34 0	35 0	36 0	37 0	38 0	38 0	39 0	40	20
15 0	31 0	31 0	32 0	33 0	34 0	35 0	35 0	36 0	37	15
20 0	28 0	29 0	29 0	30 0	31 0	32 0	32 0	33 0	34	10
25 0	25 0	26 0	26 0	27 0	27 0	28 0	29 0	29 0	30	5
5. 0 0	22 0	22 0	23 0	23 0	24 0	25 0	25 0	26 0	26	0. 7
5 0	19 0	19 0	19 0	20 0	20 0	21 0	21 0	22 0	22	25
10 0	15 0	15 0	16 0	16 0	16 0	17 0	17 0	18 0	18	20
15 0	11 0	12 0	12 0	12 0	12 0	13 0	13 0	13 0	14	15
20 0	8 0	8 0	8 0	8 0	8 0	8 0	9 0	9 0	9	10
25 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	5	5
6. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

Add

A TABLE of the Moon's Evection. Subſtract

Numerus Logarithmicus.

Synodical Anomaly. S. G.	819000 o ′	820000 o ′	821000 o ′	822000 o ′	823000 o ′	824000 o ′	825000 o ′	826000 o ′	827000 o ′	828000 o ′	Synodical Anomaly. G. S.
0. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5 0	5 0	5 0	5 0	5 0	5 0	5 0	5 0	5 0	6 0	6	25
10 0	9 0	9 0	9 0	10 0	10 0	10 0	10 0	11 0	11 0	11	20
15 0	13 0	14 0	14 0	14 0	15 0	15 0	15 0	16 0	16 0	17	15
20 0	18 0	18 0	19 0	19 0	20 0	20 0	20 0	21 0	21 0	22	10
25 0	22 0	23 0	23 0	24 0	24 0	25 0	25 0	26 0	26 0	27	5
1. 0 0	26 0	27 0	27 0	28 0	29 0	29 0	30 0	31 0	31 0	32	0. 11
5 0	30 0	31 0	31 0	32 0	33 0	34 0	35 0	35 0	36 0	37	25
10 0	34 0	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41 0	41	20
15 0	37 0	38 0	39 0	40 0	41 0	42 0	43 0	44 0	45 0	46	15
20 0	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47 0	49 0	50	10
25 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	51 0	52 0	53	5
2. 0 0	46 0	47 0	48 0	49 0	50 0	51 0	52 0	54 0	55 0	56	0. 10
5 0	48 0	49 0	50 0	51 0	53 0	54 0	55 0	56 0	58 0	59	25
10 0	50 0	51 0	52 0	53 0	55 0	56 0	57 0	58 1	0 1	1	20
15 0	51 0	52 0	53 0	55 0	56 0	58 0	59 1	0 1	2 1	3	15
20 0	52 0	53 0	54 0	56 0	57 0	59 1	0 1	1 1	3 1	4	10
25 0	53 0	54 0	55 0	57 0	58 0	59 1	1 1	2 1	4 1	5	5
3. 0 0	53 0	54 0	56 0	57 0	58 1	0 1	1 1	3 1	4 1	5	0. 9
5 0	53 0	54 0	55 0	57 0	58 0	59 1	1 1	2 1	4 1	5	25
10 0	53 0	54 0	55 0	56 0	58 0	59 1	0 1	2 1	3 1	5	20
15 0	52 0	53 0	54 0	55 0	57 0	58 0	59 1	1 1	2 1	4	15
20 0	50 0	51 0	53 0	54 0	55 0	56 0	58 0	59 1	0 1	2	10
25 0	48 0	49 0	51 0	52 0	53 0	54 0	56 0	57 0	58 1	0	5
4. 0 0	46 0	47 0	49 0	50 0	51 0	52 0	53 0	55 0	56 0	57	0. 8
5 0	44 0	45 0	46 0	47 0	48 0	49 0	50 0	52 0	53 0	54	25
10 0	41 0	42 0	43 0	44 0	45 0	46 0	47 0	48 0	50 0	51	20
15 0	38 0	39 0	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47	15
20 0	35 0	35 0	36 0	37 0	38 0	39 0	40 0	41 0	42 0	43	10
25 0	31 0	32 0	32 0	33 0	34 0	35 0	36 0	36 0	37 0	38	5
5. 0 0	27 0	28 0	28 0	29 0	30 0	30 0	31 0	32 0	32 0	33	0. 7
5 0	23 0	23 0	24 0	24 0	25 0	26 0	26 0	27 0	27 0	28	25
10 0	18 0	19 0	19 0	20 0	20 0	21 0	21 0	22 0	22 0	23	20
15 0	14 0	14 0	15 0	15 0	15 0	16 0	16 0	16 0	17 0	17	15
20 0	9 0	10 0	10 0	10 0	10 0	11 0	11 0	11 0	11 0	12	10
25 0	5 0	5 0	5 0	5 0	5 0	5 0	5 0	6 0	6 0	6	5
6. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

Add

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly. S. G.	829000 ° ′	830000 ° ′	831000 ° ′	832000 ° ′	833000 ° ′	834000 ° ′	835000 ° ′	836000 ° ′	837000 ° ′	Synodical Anomaly. G. S.
0. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5 0	6 0	6 0	6 0	6 0	6 0	6 0	6 0	7 0	7	25
10 0	11 0	12 0	12 0	12 0	12 0	13 0	13 0	13 0	14	20
15 0	17 0	17 0	18 0	18 0	19 0	19 0	19 0	20 0	20	15
20 0	22 0	23 0	24 0	24 0	25 0	25 0	26 0	26 0	27	10
25 0	28 0	28 0	29 0	30 0	30 0	31 0	32 0	33 0	33	5
1. 0 0	33 0	34 0	34 0	35 0	36 0	37 0	38 0	39 0	39	0. 11
5 0	38 0	39 0	39 0	40 0	41 0	42 0	43 0	44 0	45	25
10 0	42 0	43 0	44 0	45 0	46 0	47 0	49 0	50 0	51	20
15 0	47 0	48 0	49 0	50 0	51 0	52 0	54 0	55 0	56	15
20 0	51 0	52 0	53 0	54 0	55 0	57 0	58 0	59 1	1	10
25 0	54 0	55 0	57 0	58 0	59 1	1 1	2 1	4 1	5	5
2. 0 0	57 0	59 1	0 1	2 1	3 1	4 1	6 1	7 1	9	0. 10
5 1	0 1	2 1	3 1	5 1	6 1	7 1	9 1	11 1	12	25
10 1	2 1	4 1	5 1	7 1	8 1	10 1	12 1	13 1	15	20
15 1	4 1	6 1	7 1	9 1	10 1	12 1	14 1	15 1	17	15
20 1	6 1	7 1	9 1	10 1	12 1	14 1	15 1	17 1	19	10
25 1	7 1	8 1	10 1	11 1	13 1	15 1	16 1	18 1	20	5
3. 0 1	7 1	9 1	10 1	12 1	13 1	15 1	17 1	19 1	21	0. 9
5 1	7 1	8 1	10 1	12 1	13 1	15 1	17 1	19 1	20	25
10 1	6 1	8 1	9 1	11 1	12 1	14 1	16 1	18 1	20	20
15 1	5 1	7 1	8 1	10 1	11 1	13 1	15 1	16 1	18	15
20 1	3 1	5 1	6 1	8 1	9 1	11 1	13 1	14 1	16	10
25 1	1 1	3 1	4 1	6 1	7 1	9 1	10 1	12 1	14	5
4. 0 0	59 1	0 1	1 1	3 1	4 1	6 1	7 1	9 1	11	0. 8
5 0	56 0	57 0	58 1	0 1	1 1	2 1	4 1	5 1	7	25
10 0	52 0	53 0	54 0	56 0	57 0	58 1	0 1	1 1	3	20
15 0	48 0	49 0	50 0	52 0	53 0	54 0	55 0	57 0	58	15
20 0	44 0	45 0	46 0	47 0	48 0	49 0	50 0	52 0	52	10
25 0	39 0	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47	5
5. 0 0	34 0	35 0	36 0	37 0	37 0	38 0	39 0	40 0	41	0. 7
5 0	29 0	29 0	30 0	31 0	32 0	32 0	33 0	34 0	35	25
10 0	23 0	24 0	24 0	25 0	26 0	26 0	27 0	27 0	28	20
15 0	18 0	18 0	18 0	19 0	19 0	20 0	20 0	21 0	21	15
20 0	12 0	12 0	12 0	13 0	13 0	13 0	14 0	14 0	14	10
25 0	6 0	6 0	6 0	6 0	6 0	7 0	7 0	7 0	7	5
6. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

Add

A TABLE of the Moon's Evection. Subſtract

Numerus Logarithmicus.

Synodical Anomaly. S.	G.	838000 ° ′	839000 ° ′	840000 ° ′	841000 ° ′	842000 ° ′	843000 ° ′	844000 ° ′	845000 ° ′	846000 ° ′	847000 ° ′	Synodical Anomaly. G.	S.
0.	00	00	00	00	00	00	00	00	00	00	00	0.	12
	5 0	7 0	7 0	7 0	7 0	8 0	8 0	8 0	8 0	8 0	9 0		25
	10 0	14 0	14 0	15 0	15 0	15 9	16 0	16 0	16 0	17 0	17 0		20
	15 0	21 0	21 0	22 0	22 0	23 0	23 0	24 0	24 0	25 0	25 0		15
	20 0	28 0	28 0	29 0	29 0	30 0	31 0	32 0	32 0	33 0	34 0		10
	25 0	34 0	35 0	36 0	36 0	37 0	38 0	39 0	40 0	41 0	42 0		5
1.	00	40 0	41 0	42 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	0.	11
	5 0	46 0	47 0	48 0	50 0	51 0	52 0	53 0	54 0	55 0	57 0		25
	10 0	52 0	53 0	54 0	56 0	57 0	58 1	0 1	1 1	2 1	4 0		20
	15 0	57 0	59 1	0 1	1 1	3 1	4 1	6 1	7 1	9 1	10 1		15
	20 1	2 1	4 1	5 1	7 1	8 1	10 1	11 1	13 1	15 1	16 1		10
	25 1	7 1	8 1	10 1	11 1	13 1	15 1	16 1	18 1	20 1	22 1		5
2.	0 1	11 1	12 1	14 1	15 1	17 1	19 1	21 1	23 1	25 1	27 1	0.	10
	5 1	14 1	16 1	17 1	19 1	21 1	23 1	25 1	27 1	29 1	31 1		25
	10 1	17 1	19 1	20 1	22 1	24 1	26 1	28 1	30 1	32 1	34 1		20
	15 1	19 1	21 1	23 1	25 1	27 1	29 1	31 1	33 1	35 1	37 1		15
	20 1	21 1	23 1	25 1	27 1	29 1	31 1	33 1	35 1	37 1	39 1		10
	25 1	22 1	24 1	26 1	28 1	30 1	32 1	34 1	36 1	38 1	41 1		5
3.	0 1	22 1	24 1	26 1	28 1	30 1	32 1	35 1	37 1	39 1	41 0	0.	9
	5 1	22 1	24 1	26 1	28 1	30 1	32 1	35 1	37 1	39 1	41 1		25
	10 1	22 1	23 1	25 1	27 1	29 1	32 1	34 1	36 1	38 1	40 1		20
	15 1	20 1	22 1	24 1	26 1	28 1	30 1	32 1	34 1	36 1	39 1		15
	20 1	18 1	20 1	22 1	24 1	26 1	28 1	30 1	32 1	34 1	36 1		10
	25 1	15 1	17 1	19 1	21 1	23 1	25 1	27 1	29 1	31 1	33 1		5
4.	0 1	12 1	14 1	16 1	17 1	19 1	21 1	23 1	25 1	27 1	29 0	0.	8
	5 1	8 1	10 1	12 1	14 1	15 1	17 1	19 1	21 1	23 1	24 25		
	10 1	4 1	6 1	7 1	9 1	10 1	12 1	14 1	16 1	17 1	19		20
	15 0	59 1	1 1	2 1	4 1	5 1	7 1	8 1	10 1	12 1	13		15
	20 0	54 0	55 0	57 0	58 0	59 1	1 1	2 1	4 1	5 1	7		10
	25 0	48 0	49 0	51 0	52 0	53 0	54 0	55 0	57 0	58 1	0		5
5.	00	42 0	43 0	44 0	45 0	46 0	47 0	48 0	50 0	51 0	52 0	0.	7
	5 0	36 0	36 0	37 0	38 0	39 0	40 0	41 0	42 0	43 0	44		25
	10 0	29 0	29 0	30 0	31 0	32 0	32 0	33 0	34 0	35 0	36		20
	15 0	22 0	22 0	23 0	23 0	24 0	24 0	25 0	26 0	26 0	27		15
	20 0	15 0	15 0	15 0	16 0	16 0	16 0	17 0	17 0	18 0	18		10
	25 0	7 0	7 0	8 0	8 0	8 0	8 0	8 0	9 0	9 0	9		5
6.	00	00	00	00	00	00	00	00	00	00	00	0.	6

Add

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly.	848000	849000	850000	851000	852000	853000	854000	855000	856000	Synodical Anomaly.
S. G.	o '	o '	o '	o '	o '	o '	o '	o '	o '	G. S.
0. 00	00	00	00	00	00	00	00	00	00	0. 12
50	90	90	90	90	100	100	100	100	10	25
100	17	18	18	19	19	19	20	20	21	20
150	26	27	27	28	28	29	30	30	31	15
200	34	35	36	37	38	39	39	40	41	10
250	43	44	45	46	47	48	49	50	51	5
1. 00	51	52	53	54	55	57	58	59	1 0	0. 11
50	58	59	1 1	2	3	5	6	8	9	25
101	5	7	8	10	11	13	15	16	18	20
151	12	13	15	17	19	20	22	24	26	15
201	18	20	22	23	25	27	29	31	33	10
251	23	25	27	29	31	33	36	38	40	5
2. 01	28	30	33	35	37	39	41	44	46	0. 10
51	33	35	37	39	42	44	46	49	51	25
101	36	39	41	43	46	48	51	52	56	20
151	39	42	44	46	49	51	54	57	59	15
201	42	44	46	48	51	54	57	59 2	2	10
251	43	45	48	50	53	56	58 2	1 2	4	5
3. 01	44	46	49	51	54	56	59 2	2 2	5	0. 9
51	44	46	49	51	54	56	59 2	2 2	5	25
101	43	45	48	50	53	55	58 2	1 2	4	20
151	41	42	46	48	51	53	56	59 2	2	15
201	38	41	43	45	48	50	53	56	59	10
251	35	37	40	42	45	47	50	52	55	5
4. 01	31	33	36	38	40	43	45	47	50	0. 8
51	26	28	31	33	35	37	39	42	44	25
101	21	23	25	27	29	31	33	36	38	20
151	15	17	19	20	22	24	26	28	30	15
201	8	10	12	13	15	17	19	20	22	10
251	1	2	4	5	7	9	10	12	13	5
5. 00	53	55	56	57	59	0 1	1	3	4	0. 7
50	45	46	47	48	50	51	52	53	54	25
100	36	37	38	39	40	41	42	43	44	20
150	27	28	29	30	30	31	32	33	33	15
200	18	19	19	20	20	21	21	22	22	10
250	9	9	10	10	10	11	11	11	11	5
6. 00	00	00	00	00	00	00	00	00	00	0. 6

Add

A TABLE of the Moon's Evection. Substract

Numerus Logarithmicus.

Synodical Anomaly. S. G.	857000	858000	859000	860000	861000	862000	863000	864000	865000	866000	Synodical Anomaly. S. G.
0. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 12
5 0	11 0	11 0	11 0	11 0	12 0	12 0	12 0	12 0	13 0	13 25	
10 0	21 0	22 0	22 0	23 0	23 0	24 0	24 0	25 0	25 0	26 20	
15 0	32 0	33 0	33 0	34 0	35 0	36 0	36 0	37 0	38 0	39 15	
20 0	42 0	43 0	44 0	45 0	46 0	47 0	48 0	49 0	50 0	52 10	
25 0	52 0	53 0	45 0	56 0	57 0	58 1	0 1	1 1	2 1	45	
1. 0 1	2 1	3 1	5 1	6 1	8 1	9 1	11 1	12 1	14 1	16 0. 11	
5 1	11 1	13 1	14 1	16 1	18 1	19 1	21 1	23 1	25 1	27 25	
10 1	10 1	22 1	23 1	25 1	27 1	29 1	31 1	33 1	35 1	37 20	
15 1	28 1	30 1	32 1	34 1	36 1	38 1	41 1	43 1	45 1	47 15	
20 1	35 1	38 1	40 1	42 1	44 1	47 1	49 1	52 1	54 1	57 10	
25 1	42 1	45 1	47 1	50 1	52 1	55 1	57 2	0 2	3 2	5 5	
2. 0 1	49 1	51 1	54 1	56 1	59 2	2 2	4 2	7 2	10 2	13 0. 10	
5 1	54 1	57 1	59 2	2 2	5 2	8 2	10 2	13 2	17 2	20 25	
10 1	58 2	1 2	4 2	7 2	10 2	13 2	16 2	19 2	22 2	25 20	
15 2	2 2	5 2	8 2	11 2	14 2	17 2	20 2	23 2	27 2	30 15	
20 2	5 2	8 2	11 2	14 2	17 2	20 2	23 2	27 2	30 2	33 10	
25 2	7 2	10 2	13 2	16 2	19 2	22 2	25 2	29 2	32 2	36 5	
3. 0 2	8 2	11 2	14 2	17 2	20 2	23 2	26 2	30 2	34 2	37 0. 9	
5 2	8 2	11 2	14 2	17 2	20 2	23 2	26 2	30 2	33 2	37 25	
10 2	7 2	9 2	12 2	16 2	19 2	22 2	25 2	29 2	32 2	36 20	
15 2	5 2	7 2	10 2	13 2	17 2	20 2	23 2	26 2	30 2	33 15	
20 2	2 2	4 2	7 2	10 2	13 2	16 2	20 2	23 2	26 2	30 10	
25 1	58 2	0 2	3 2	6 2	9 2	12 2	15 2	18 2	22 2	25 5	
4. 0 1	53 1	55 1	58 2	1 2	4 2	7 2	10 2	13 2	16 2	19 0. 8	
5 1	47 1	49 1	52 1	55 1	57 2	0 2	3 2	6 2	9 2	12 25	
10 1	40 1	43 1	45 1	47 1	50 1	53 1	55 1	58 2	1 2	4 20	
15 1	33 1	35 1	37 1	39 1	42 1	44 1	47 1	49 1	52 1	55 15	
20 1	24 1	26 1	28 1	31 1	32 1	35 1	37 1	40 1	42 1	45 10	
25 1	16 1	17 1	19 1	21 1	23 1	25 1	27 1	29 1	31 1	34 5	
5. 0 1	6 1	7 1	9 1	11 1	12 1	14 1	16 1	18 1	20 1	22 0. 7	
5 0	56 0	57 0	59 1	0 1	1 1	3 1	4 1	6 1	8 1	9 25	
10 0	45 0	46 0	47 0	49 0	50 0	51 0	52 0	53 0	55 0	56 20	
15 0	34 0	35 0	36 0	37 0	38 0	39 0	40 0	40 0	41 0	42 15	
20 0	23 0	24 0	24 0	25 0	25 0	26 0	27 0	27 0	28 0	28 10	
25 0	11 0	12 0	12 0	12 0	13 0	13 0	13 0	14 0	14 0	14 5	
6. 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0. 6

A Table of the MOON's Latitude.

Degr.	Sig. 0 *North* Sig. 6 *South* Latitude			Excess		Sig. 1 *North* Sig. 7 *South* Latitude			Excess		Sig. 2 *North* Sig. 8 *South* Latitude			Excess		Degr.
	°	′	″	′	″	°	′	″	′	″	°	′	″	′	″	
0	0	0	0	0	0	2	29	52	8	30	4	14	43	14	43	30
1	0	5	14	0	18	2	34	22	8	45	4	22	18	14	52	29
2	0	10	27	0	36	2	38	50	9	0	4	24	49	15	0	28
3	0	15	41	0	54	2	43	15	9	15	4	27	14	15	8	27
4	0	20	54	1	12	2	47	37	9	30	4	29	34	15	16	26
5	0	26	7	1	29	2	51	56	9	45	4	31	50	15	24	25
6	0	31	19	1	55	2	56	11	10	0	4	34	0	15	31	24
7	0	36	31	2	5	3	0	24	10	14	4	36	6	15	38	23
8	0	41	42	2	22	3	4	33	10	28	4	38	6	15	45	22
9	0	46	52	2	40	3	8	39	10	42	4	40	2	15	52	21
10	0	52	2	2	57	3	12	42	10	56	4	41	52	15	58	20
11	0	57	10	3	15	3	16	41	11	9	4	43	37	16	4	19
12	1	2	18	3	32	3	20	36	11	22	4	45	17	16	10	18
13	1	7	24	3	49	3	24	28	11	35	4	46	52	16	15	17
14	1	12	29	4	7	3	28	16	11	48	4	48	21	16	20	16
15	1	17	33	4	24	3	32	6	12	1	4	49	45	16	25	15
16	1	22	36	4	41	3	35	40	12	13	4	51	4	16	29	14
17	1	27	37	4	58	3	39	17	12	25	4	52	17	16	33	13
18	1	32	36	5	15	3	42	49	12	37	4	53	26	16	37	12
19	1	37	42	5	32	3	46	17	12	49	4	54	29	16	41	11
20	1	42	30	5	49	3	49	42	13	1	4	55	26	16	44	10
21	1	47	24	6	5	3	53	2	13	12	4	56	18	16	47	9
22	1	52	16	6	22	3	56	17	13	23	4	57	4	16	50	8
23	1	57	6	6	38	3	59	29	13	34	4	57	45	16	52	7
24	2	1	54	6	55	4	2	36	13	45	4	58	21	16	54	6
25	2	6	39	7	11	4	5	38	13	55	4	58	51	16	56	5
26	2	11	23	7	27	4	8	37	14	5	4	59	16	16	57	4
27	2	16	4	7	43	4	11	30	14	14	4	59	35	16	58	3
28	2	20	42	7	58	4	14	19	14	24	4	59	49	16	59	2
29	2	25	18	8	14	4	17	4	14	33	4	59	57	16	59	1
30	2	29	52	8	30	4	19	43	14	43	5	0	0	17	0	0
	Sig. 11 *North* Sig. 5 *South*					Sig. 10 *North* Sig. 4 *South*					Sig. 9 *South* Sig. 3 *North*					

A Table of the MOON's Latitude in Eclipses.

Sig. 0 Latitude *North* Sig. 6 Latitude *South*				Sig. 0 Latitude *North* Sig. 6 Latitude *South*				Sig. 0 Latitude *North* Sig. 6 Latitude *South*			
°	′	°	′ ″	°	′	°	′ ″	°	′	°	′ ″
0	0	0	0 0	5	0	0	26 7	10	0	0	52 1
	10	0	0 52		10	0	26 59		10	0	52 53
	20	0	1 44		20	0	27 51		20	0	53 44
	30	0	2 37		30	0	28 43		30	0	54 36
	40	0	3 29		40	0	29 37		40	0	55 27
	50	0	4 21		50	0	30 27		50	0	56 19
1	0	0	5 14	6	0	0	31 19	11	0	0	57 10
	10	0	6 6		10	0	32 11		10	0	58 2
	20	0	6 58		20	0	33 3		20	0	58 53
	30	0	7 50		30	0	33 55		30	0	59 44
	40	0	8 43		40	0	34 47		40	1	0 36
	50	0	9 35		50	0	35 39		50	1	1 27
2	0	0	10 27	7	0	0	36 31	12	0	1	2 18
	10	0	11 20		10	0	37 23		10	1	3 9
	20	0	12 12		20	0	38 15		20	1	4 0
	30	0	13 4		30	0	39 7		30	1	4 51
	40	0	13 56		40	0	39 58		40	1	5 42
	50	0	14 49		50	0	40 50		50	1	6 33
3	0	0	15 41	8	0	0	41 42	13	0	1	7 24
	10	0	16 33		10	0	42 34		10	1	8 15
	20	0	17 25		20	0	43 25		20	1	9 6
	30	0	18 18		30	0	44 17		30	1	9 57
	40	0	19 10		40	0	45 9		40	1	10 48
	50	0	20 2		50	0	46 1		50	1	11 38
4	0	0	20 54	9	0	0	46 54	14	0	1	12 29
	10	0	21 46		10	0	47 46		10	1	13 20
	20	0	22 39		20	0	48 35		20	1	14 10
	30	0	23 31		30	0	49 27		30	1	15 1
	40	0	24 23		40	0	50 18		40	1	15 52
	50	0	25 15		50	0	51 10		50	1	16 42
5	0	0	26 7	10	0	0	52 1	15	0	1	17 33
Sig. 5 Latitude *North* Sig. 11 Latitude *South*				Sig. 5 Latitude *North* Sig. 11 Latitude *South*				Sig. 5 Latitude *North* Sig. 11. Latitude *South*			

°	′	″
0	0	20
	10	50
	20	40
	30	31
	40	20
	50	10
0	0	19
	10	50
	20	40
	30	30
	40	20
	50	10
0	0	18
	10	50
	20	40
	30	30
	40	20
	50	10
0	0	17
	10	50
	20	40
	30	30
	40	20
	50	10
0	0	16
	10	50
	20	40
	30	30
	40	20
	50	10
0	0	15

A TABLE of the MOON'S Latitude in Eclipses.

Sig. 0 Latitude *North* Sig. 6 Latitude *South*				Sig. 0 Latitude *North* Sig. 6 Latitude *South*			
°	° ′ ″	′	°	°	° ′ ″	′	°
15 0	1 17 33	0	15	20 0	1 42 30	0	10
10	1 18 23	50		10	1 43 19	50	
20	1 19 14	40		20	1 44 8	40	
30	1 20 4	30		30	1 44 57	30	
40	1 20 55	20		40	1 45 46	20	
50	1 21 45	10		50	1 46 35	10	
16 0	1 22 36	0	14	21 0	1 47 24	0	9
10	1 23 26	50		10	1 48 13	50	
20	1 24 16	40		20	1 49 1	40	
30	1 25 6	30		30	1 49 50	30	
40	1 25 57	20		40	1 50 39	20	
50	1 26 47	10		50	1 51 27	10	
17 0	1 27 37	0	13	22 0	1 52 16	0	8
10	1 28 27	50		10	1 53 4	50	
20	1 29 17	40		20	1 53 53	40	
30	1 30 6	30		30	1 54 41	30	
40	1 30 56	20		40	1 55 29	20	
50	1 31 46	10		50	1 56 18	10	
18 0	1 32 36	0	12	23 0	1 57 6	0	7
10	1 33 25	50		10	1 57 54	50	
20	1 34 15	40		20	1 58 42	40	
30	1 35 5	30		30	1 59 30	30	
40	1 35 54	20		40	2 0 18	20	
50	1 36 44	10		50	2 1 6	10	
19 0	1 37 34	0	11	24 0	2 1 54	0	6
10	1 38 23	50		10	2 2 42	50	
20	1 39 13	40		20	2 3 29	40	
30	1 40 2	30		30	2 4 17	30	
40	1 40 51	20		40	2 5 4	20	
50	1 41 41	10		50	2 5 52	10	
20 0	1 42 30	0	10	25 0	2 6 39	0	5
Sig. 5 Latitude *North* Sig. 11 Latitude *South*				Sig. 5 Latitude *North* Sig. 11 Latitude *South*			

A TABLE Respecting the MOON's Orb, and Eclipses.

A Table of the Reduction of the Moon from her proper Orb, to the Ecliptic, and the Contrary

Anomaly, Moon's Latitude from ☊.

Degr.	Sig.0 Sig.6 Sub.	Sig.1 Sig.7 Sub.	Sig.2 Sig.8 Sub.	Degr.
	° ′ ″	° ′ ″	° ′ ″	
0	0 0 0	0 5 36	0 5 30	30
1	0 0 14	0 5 35	0 5 24	29
2	0 0 28	0 5 40	0 5 16	28
3	0 0 42	0 5 45	0 5 8	27
4	0 0 55	0 5 49	0 5 0	26
5	0 1 7	0 5 55	0 4 52	25
6	0 1 20	0 5 59	0 4 45	24
7	0 1 34	0 6 3	0 4 35	23
8	0 1 47	0 6 5	0 4 26	22
9	0 2 0	0 6 9	0 4 16	21
10	0 2 12	0 6 12	0 4 0	20
11	0 2 25	0 6 13	0 3 57	19
12	0 2 38	0 6 14	0 3 47	18
13	0 2 51	0 6 15	0 3 36	17
14	0 3 3	0 6 16	0 3 25	16
15	0 3 14	0 6 17	0 3 14	15
16	0 3 25	0 6 16	0 3 3	14
17	0 3 36	0 6 15	0 2 51	13
18	0 3 47	0 6 14	0 2 38	12
19	0 3 57	0 6 13	0 2 25	11
20	0 4 6	0 6 12	0 2 12	10
21	0 4 16	0 6 9	0 2 0	9
22	0 4 26	0 6 6	0 1 47	8
23	0 4 35	0 6 3	0 1 34	7
24	0 4 45	0 6 0	0 1 20	6
25	0 4 52	0 5 55	0 1 7	5
26	0 5 0	0 5 50	0 0 55	4
27	0 5 8	0 5 45	0 0 42	3
28	0 5 16	0 5 40	0 0 28	2
29	0 5 24	0 5 35	0 0 14	1
30	0 5 30	0 5 30	0 0 0	0
Deg.	Sig.11 Sig. 5 Add.	Sig.10 Sig.4 Add.	Sig.9 Sig.3 Add.	Deg.

A Table of the Distance of the true Conjunction or Opposition from the greatest Obscuration.

Lat. ☽.	Distance.
° ′	″
0 5	0 25
0 10	0 51
0 15	1 17
0 20	1 43
0 25	2 9
0 30	2 34
0 35	3 0
0 40	3 25
0 45	3 50
0 50	4 15
0 55	4 41
1 0	5 7
1 5	5 32
1 10	5 57
1 15	6 24
1 20	6 49
1 25	7 14
1 30	7 39
1 35	8 4
1 40	8 30

No. Ascend. } Sub.
So. Ascend. }

No. Descend. } Add.
So. Descend. }

A Table of the Horizontal Parallax of the MOON, with the Hourly Motions, and Semidiameters of the SUN and MOON.

Middle Anom. ☉ & ☽		Semi-diam. ☉		Hourly Motion ☉		Horiz. Parall. ☽		Semi-diam. ☽		Hourly Motion ☽		Middle Anom. ☉ & ☽	
S	o	′	″	′	″	°	′	′	″	′	″	o	S
o	6	16	o	2	23	53	o	14	50	29	40	o	12
	o	16	1	2	23	53	1	14	51	29	41	24	
	12	16	1	2	23	53	3	14	52	29	43	18	
	18	16	2	2	23	53	7	14	53	29	48	12	
	24	16	2	2	23	53	14	14	54	29	56	6	
1	o	16	3	2	23	53	22	14	56	30	6	o	11
	6	16	3	2	24	53	33	14	59	30	18	24	
	12	16	3	2	24	53	45	15	2	30	32	18	
	18	16	4	2	24	54	o	15	6	30	49	12	
	24	16	6	2	25	54	17	15	10	31	9	6	
2	o	16	8	2	25	54	34	15	15	31	31	o	10
	6	16	9	2	25	54	54	15	20	31	53	24	
	12	16	10	2	26	55	15	15	25	32	16	18	
	18	16	11	2	26	55	37	15	31	32	40	12	
	24	16	13	2	27	56	1	15	37	33	5	6	
3	o	16	15	2	27	56	25	15	43	33	30	o	9
	6	16	17	2	28	56	50	15	49	33	57	24	
	12	16	19	2	28	57	15	15	45	34	24	18	
	18	16	20	2	29	57	41	16	1	34	50	12	
	24	16	21	2	30	58	6	16	7	35	16	6	
4	o	16	23	2	30	58	30	16	13	35	41	o	8
	6	16	25	2	31	58	54	16	18	36	5	24	
	12	16	26	2	31	59	16	16	22	36	27	18	
	18	16	27	2	32	59	37	16	26	36	48	12	
	24	16	28	2	32	59	56	16	31	37	8	6	
5	o	16	29	2	32	60	12	16	34	37	25	o	7
	6	16	29	2	33	60	26	16	36	37	41	24	
	12	16	30	2	33	60	37	16	37	37	54	18	
	18	16	30	2	33	60	45	16	38	38	3	12	
	24	16	30	2	33	60	48	16	39	38	8	6	
6	o	16	30	2	33	60	50	16	40	38	10	o	6

A Table of the MOON's Proportional Scruples, and Equation of Nodes.

Dist. ☉ ☽	Proportional Scruples: Sig. 0 Sig. 6	Sig. 1 Sig. 7	Sig. 2 Sig. 8	Equation of ☽s Nodes: Sig. 0 Sig. 6 Sub.	Sig. 1 Sig. 7 Sub.	Sig. 2 Sig. 8 Sub.	Dist. ☉ ☽
	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	
0	0 0 0	0 15 17	0 45 18	0 0 0	1 23 10	1 20 54	30
1	0 0 1	0 16 13	0 46 11	0 3 24	1 24 44	1 19 10	29
2	0 0 4	0 17 11	0 47 3	0 6 48	1 26 10	1 17 20	28
3	0 0 9	0 18 9	0 47 52	0 10 11	1 27 30	1 15 25	27
4	0 0 16	0 19 7	0 48 41	0 13 34	1 28 44	1 13 24	26
5	0 0 26	0 20 6	0 49 29	0 16 55	1 29 51	1 11 18	25
6	0 0 39	0 21 5	0 50 17	0 20 14	1 30 50	1 9 7	24
7	0 0 54	0 22 5	0 51 2	0 23 33	1 31 45	1 6 51	23
8	0 1 11	0 23 6	0 51 45	0 26 49	1 32 30	1 4 31	22
9	0 1 31	0 24 7	0 52 26	0 30 3	1 33 10	1 2 0	21
10	0 1 52	0 25 9	0 53 6	0 33 16	1 33 44	0 59 38	20
11	0 2 14	0 26 12	0 53 44	0 36 25	1 34 10	0 57 5	19
12	0 2 39	0 27 15	0 54 21	0 39 32	1 34 28	0 54 28	18
13	0 3 6	0 28 18	0 54 57	0 42 35	1 34 40	0 51 48	17
14	0 3 35	0 29 21	0 55 31	0 45 36	1 34 45	0 49 4	16
15	0 4 7	0 30 24	0 56 4	0 48 32	1 34 42	0 46 16	15
16	0 4 40	0 31 26	0 56 34	0 51 24	1 34 35	0 43 25	14
17	0 5 15	0 32 29	0 57 1	0 54 12	1 34 16	0 40 31	13
18	0 5 51	0 33 31	0 57 26	0 56 57	1 33 54	0 37 35	12
19	0 6 29	0 34 33	0 57 51	0 59 37	1 33 26	0 34 36	11
20	0 7 9	0 35 35	0 58 13	1 2 13	1 32 50	0 31 35	10
21	0 7 51	0 36 37	0 58 34	1 4 43	1 32 6	0 28 32	9
22	0 8 34	0 37 39	0 58 52	1 7 7	1 31 19	0 25 26	8
23	0 9 20	0 38 40	0 59 7	1 9 27	1 30 22	0 22 19	7
24	0 10 9	0 39 40	0 59 20	1 11 42	1 29 19	0 19 11	6
25	0 10 58	0 40 38	0 59 32	1 13 53	1 28 11	0 16 1	5
26	0 11 47	0 41 35	0 59 42	1 15 57	1 26 54	0 12 50	4
27	0 12 37	0 42 32	0 59 50	1 17 54	1 25 33	0 9 38	3
28	0 13 28	0 43 28	0 59 55	1 19 46	1 24 8	0 6 26	2
29	0 14 22	0 44 23	0 59 58	1 21 31	1 22 34	0 3 13	1
30	1 15 17	0 45 18	1 0 0	1 23 10	1 20 54	0 0 0	0
	Sig. 11 Sig. 5	Sig. 10 Sig. 4	Sig. 9 Sig. 3	Sig. 11 Sig. 5 Add.	Sig. 10 Sig. 4 Add.	Sig. 9 Sig. 3 Add.	

A Table of SATURN's Mean Motion.

The Epocha or Radices

Anni Christ	Longit. ♄ S	o	'	Anom. ♄ S	o	'	Node. ♄ S	o	'
1	2	15	44	6	22	c	3	4	28
101	7	9	2	11	13	16	3	5	28
201	0	2	19	4	4	31	3	6	28
301	4	25	36	8	25	48	3	7	28
401	9	18	53	1	17	4	3	8	29
501	2	12	10	6	8	19	3	9	29
601	7	5	27	10	29	35	3	10	29
701	11	28	45	3	20	51	3	11	30
801	4	22	2	8	12	7	3	12	30
901	9	15	19	1	3	23	3	13	30
1001	2	8	36	5	24	39	3	14	31
1101	7	1	54	10	15	55	3	15	31
1201	11	25	11	3	7	1c	3	16	31
1301	4	18	28	7	28	27	3	17	32
1401	9	11	45	0	19	43	3	18	32
1501	2	5	2	5	10	58	3	19	32
1601	6	28	20	10	2	14	3	20	33
1701	11	21	37	2	23	3c	3	21	33
1801	4	14	54	7	14	45	3	22	33
1901	9	8	12	0	6	2	3	23	34
2001	2	1	30	4	27	18	3	24	34

Saturn's Mean Motion exceeding 20 *Years.*

2c	8	4	40	8	4	15	0	0	12
4c	4	9	20	4	8	30	0	0	24
6c	0	14	0	0	12	46	0	0	36
8c	8	18	39	8	17	1	0	0	48
10c	4	23	18	4	21	16	0	1	0
100c	11	22	54	11	2	39	0	10	2

Saturn's Mean Motion to 20 Ye.

Years to xx.	Longit. ♄ S	o	'	Anom. ♄ S	o	'	Node ♄ S	o	'
1	0	12	14	0	12	13	0	0	1
2	0	24	27	0	24	24	0	0	1
3	1	6	41	1	6	37	0	0	2
B 4	1	18	56	1	18	51	0	0	2
5	2	1	10	2	1	3	0	0	3
6	2	13	24	2	13	16	0	0	4
7	2	25	37	2	2528		0	0	4
B 8	3	7	53	3	7	42	0	0	5
9	3	20	6	3	19	54	0	0	5
10	4	2	19	4	2	7	0	0	6
11	4	14	33	4	14	19	0	0	7
B 12	4	26	48	4	26	33	0	0	7
13	5	9	2	5	8	46	0	0	8
14	5	21	15	5	20	57	0	0	8
15	6	3	29	6	3	10	0	0	9
B 16	6	15	45	6	15	25	0	0	9
17	6	27	58	6	27	36	0	0	10
18	7	10	12	7	9	49	0	0	11
19	7	22	25	7	22	1	0	0	11
B 20	8	4	40	8	4	15	0	0	12

Years from 1690.

1690	7	7	5	10	9	9	3	21	26
1691	7	19	18	10	21	22	3	21	27
B1692	8	1	32	11	3	34	3	21	27
1993	8	13	47	11	15	48	3	21	28
1694	8	26	1	11	28	1	3	21	28
1695	9	8	14	0	10	13	3	21	29
B1696	9	20	28	0	22	25	3	21	30
1697	10	2	44	1	4	40	3	21	30
1698	10	14	57	1	16	51	3	21	31

A Table of SATURN's Mean Motion.

Years	Longit. ♄			Anom. ♄			Node ♄		
	S.	o	'	S.	o	'	S.	o	'
1699	10	27	10	1	29	9	3	21	32
B1700	11	9	23	2	11	1	3	21	32
1701	11	21	37	2	23	30	3	21	33
1702	0	3	51	3	5	43	3	21	34
1703	0	16	5	3	17	55	3	21	34
B1704	0	28	18	4	0	7	3	21	35
1705	1	10	34	4	12	22	3	21	35
1706	1	22	47	4	24	34	3	21	36
1707	2	5	1	5	6	46	3	21	37
B1708	2	17	14	5	18	58	3	21	37
1709	2	29	30	6	1	12	3	21	38
1710	3	11	43	6	13	24	3	21	39
1711	3	23	57	6	25	37	3	21	39
B1712	4	6	10	7	7	49	3	21	40
1713	4	18	25	7	20	3	3	21	40
1714	5	0	39	8	2	15	3	21	41
1715	5	12	52	8	14	28	3	21	41
B1716	5	25	6	8	26	40	3	21	42
1717	6	7	22	9	8	55	3	21	43
1718	6	19	36	9	21	7	3	21	43
1719	7	1	44	10	3	19	3	21	44
B1720	7	14	2	10	15	31	3	21	44
1721	7	26	17	10	27	45	3	21	45
1722	8	8	31	11	9	58	3	21	45
1723	8	20	44	11	22	10	3	21	46
B1724	9	2	58	0	4	22	3	21	47
1725	9	15	13	0	16	36	3	21	47
1726	9	27	27	0	28	49	3	21	48
1727	10	9	40	1	11	1	3	21	48
B1728	10	10	54	1	23	13	3	21	49
1729	11	4	10	2	5	28	3	21	50
1730	11	16	23	2	17	40	3	21	50
1731	11	28	37	2	29	52	3	21	51
B1732	0	10	50	3	12	4	3	21	52
1733	0	23	5	3	24	18	3	21	53
1734	1	5	19	4	6	31	3	21	53
1735	1	17	33	4	18	43	3	21	54
B1736	1	29	46	5	0	55	3	21	54
1737	2	12	1	5	13	9	3	21	55
1738	2	24	15	5	25	22	3	21	55
1739	3	6	29	6	7	34	3	21	56
B1740	3	18	42	6	19	46	3	21	56
1741	4	0	58	7	2	0	3	21	57
1742	4	13	11	7	14	13	3	21	57
1743	4	25	24	7	26	25	3	21	58
B1744	5	7	38	8	8	37	3	21	59
1745	5	19	53	8	20	51	3	22	0
1746	6	2	7	9	3	4	3	22	0
1747	6	14	20	9	15	16	3	22	1
B1748	6	26	34	9	27	28	3	22	1
1749	7	8	49	10	9	42	3	22	2
1750	7	21	3	10	21	55	3	22	2
1751	8	3	16	11	4	7	3	22	3
B1752	8	15	30	11	16	19	3	22	4
1753	8	27	45	11	28	33	3	22	4
1754	9	9	58	0	10	46	3	22	5
1755	9	22	12	0	22	58	3	22	5
B1756	10	4	26	1	5	10	3	22	6
1757	10	16	42	1	17	25	3	22	7
1758	10	28	56	1	29	37	3	22	7

A Table of SATURN's Mean Motion.

Years	Longit. ♄ S.	o	'	Anom. ♄ S.	o	'	Node ♄ S.	o	'
1759	11	11	9	2	11	49	3	22	8
B1760	11	23	22	2	24	1	3	22	8
1761	0	5	37	3	6	15	3	22	9
1762	0	17	50	3	18	28	3	22	10
1763	1	0	4	4	0	41	3	22	10
B1764	1	12	18	4	12	53	3	22	11
1765	1	24	34	4	25	8	3	22	11
1766	2	6	47	5	7	20	3	22	12
1767	2	19	0	5	19	32	3	22	13
B1768	3	1	14	6	1	44	3	22	13
1769	3	13	28	6	13	58	3	22	14
1770	3	25	42	6	26	10	3	22	14
1771	4	7	56	7	8	23	3	22	15
B1772	4	20	10	7	20	35	3	22	16
1773	5	2	25	8	2	49	3	22	16
1774	5	14	38	8	15	1	3	22	17
1775	5	26	52	8	27	14	3	22	17
B1776	6	9	6	9	9	26	3	22	18
1777	6	21	21	9	21	40	3	22	19
1778	7	3	35	10	3	52	3	22	19
1779	7	15	48	10	16	4	3	22	20
B1780	7	28	2	10	28	17	3	22	20
1781	8	10	17	11	10	31	3	22	21
1782	8	22	30	11	22	43	3	22	22
1783	9	4	44	0	4	56	3	22	22
B1784	9	16	57	0	17	8	3	22	23
1785	9	29	12	0	29	21	3	22	23
1786	10	11	25	1	11	33	3	22	24
1787	10	23	39	1	23	46	3	22	25
B1788	11	5	53	2	5	59	3	22	25
1789	11	18	8	2	18	13	3	22	26
1790	0	0	21	3	0	25	3	22	26
1791	0	12	35	3	12	38	3	22	27
B1792	0	24	49	3	24	50	3	22	28
1793	1	7	4	4	7	4	3	22	28
1794	1	19	17	4	19	16	3	22	29
1795	2	1	31	5	1	28	3	22	29
B1796	2	13	45	5	13	41	3	22	30
1797	2	26	0	5	25	55	3	22	31
1798	3	8	13	6	8	7	3	22	31
1799	3	20	27	6	20	20	3	22	32
B1800	4	2	41	7	2	32	3	22	32
1801	4	14	56	7	14	46	3	22	33
1802	4	27	9	7	26	58	3	22	34
1803	5	9	22	8	9	10	3	22	34
B1804	5	21	35	8	21	22	3	22	35
1805	6	3	50	9	3	36	3	22	35
1806	6	16	3	9	15	48	3	22	36
1807	6	28	17	9	28	1	3	22	36
B1808	7	10	31	10	10	13	3	22	37
1809	7	22	46	10	22	27	3	22	38
1810	8	4	59	11	4	39	3	22	38
1811	8	17	13	11	16	52	3	22	39
B1812	8	29	27	11	29	4	3	22	40
1813	9	11	42	0	11	18	3	22	40
1814	9	23	55	0	23	30	3	22	41
1815	10	6	9	1	5	43	3	22	41
B1816	10	18	23	1	17	55	3	22	42
1817	11	0	38	2	0	9	3	22	43
1818	11	12	52	2	12	21	3	22	43

A TABLE of SATURN's Mean Motion.

Com. Years	JANUARY.		FEBRUAR.		MARCH.		Biſſextile.
	Lon. ♄	An. ♄	Lon. ♄	An. ♄	Lon. ♄	An. ♄	
	° ′	° ′	° ′	° ′	° ′	° ′	
1	0 2	0 2	1 4	1 4	2 1	2 1	0
2	0 4	0 4	1 6	1 6	2 3	2 3	1
3	0 6	0 6	1 8	1 8	2 5	2 5	2
4	0 8	0 8	1 10	1 10	2 7	2 7	3
5	0 10	0 10	1 12	1 12	2 9	2 9	4
6	0 12	0 12	1 14	1 14	2 11	2 11	5
7	0 14	0 14	1 16	1 16	2 13	2 13	6
8	0 16	0 16	1 18	1 18	2 15	2 15	7
9	0 18	0 18	1 20	1 20	2 17	2 17	8
10	0 20	0 20	1 22	1 22	2 19	2 19	9
11	0 22	0 22	1 24	1 24	2 21	2 21	10
12	0 24	0 24	1 26	1 26	2 23	2 23	11
13	0 26	0 26	1 28	1 28	2 25	2 25	12
14	0 28	0 28	1 30	1 30	2 27	2 27	13
15	0 30	0 30	1 32	1 32	2 29	2 29	14
16	0 32	0 32	1 34	1 34	2 31	2 31	15
17	0 34	0 34	1 36	1 36	2 33	2 33	16
18	0 36	0 36	1 38	1 38	2 35	2 35	17
19	0 38	0 38	1240	1 40	2 37	2 37	18
20	0 40	0 40	1 42	1 42	2 39	2 39	19
21	0 42	0 42	1 44	1 44	2 41	2 41	20
22	0 44	0 44	1 46	1 46	2 43	2 43	21
23	0 46	0 46	1 48	1 48	2 45	2 45	22
24	0 48	0 48	1 50	1 50	2 47	2 47	23
25	0 50	0 50	1 52	1 52	2 49	2 49	24
26	0 52	0 52	1 55	1 55	2 51	2 51	25
27	0 54	0 54	1 57	1 57	2 53	2 53	26
28	0 56	0 56	1 59	1 59	2 55	2 55	27
29	0 58	0 58	2 1	2 1	2 57	2 57	28
30	1 0	1 0	0 0	0 0	2 59	2 59	29
31	1 2	1 2	0 0	0 0	3 1	3 1	30

A TABLE of SATURN's Mean Motion.

Com. Years	APRIL. Lon. ♄	APRIL. An. ♄	MAY. Lon. ♄	MAY. An. ♄	JUNE. Lon. ♄	JUNE. An. ♄	Bissextile.
	° ′	° ′	° ′	° ′	° ′	° ′	
1	3 3	3 3	4 3	4 3	5 5	5 5	0
2	3 5	3 5	4 5	4 5	5 7	5 7	1
3	3 7	3 7	4 7	4 7	5 9	5 9	2
4	3 9	3 9	4 9	4 9	5 11	5 11	3
5	3 11	3 11	4 11	4 11	5 13	5 13	4
6	3 13	3 13	4 13	4 13	5 15	5 15	5
7	3 15	3 15	4 15	4 15	5 17	5 17	6
8	3 17	3 17	4 17	4 17	5 19	5 19	7
9	3 19	3 19	4 19	4 19	5 21	5 21	8
10	3 21	3 21	4 21	4 21	5 23	5 23	9
11	3 23	3 23	4 23	4 23	5 25	5 25	10
12	3 25	3 25	4 25	4 25	5 27	5 27	11
13	3 27	3 27	4 27	4 27	5 29	5 29	12
14	3 29	3 29	4 29	4 29	5 31	5 31	13
15	3 31	3 31	4 31	4 31	5 33	5 33	14
16	3 33	3 33	4 33	4 33	5 35	5 35	15
17	3 35	3 35	4 35	4 35	5 37	5 37	16
18	3 37	3 37	4 37	4 37	5 39	5 39	17
19	3 39	3 39	4 39	4 39	5 41	5 41	18
20	3 41	3 41	4 41	4 41	5 43	5 43	19
21	3 43	3 43	4 43	4 43	5 45	5 45	20
22	3 45	3 45	4 45	4 45	5 47	5 47	21
23	3 47	3 47	4 47	4 47	5 49	5 49	22
24	3 49	3 49	4 49	4 49	5 51	5 51	23
25	3 51	3 51	4 51	4 51	5 53	5 53	24
26	3 53	3 53	4 53	4 53	5 55	5 55	25
27	3 55	3 55	4 55	4 55	5 57	5 57	26
28	3 57	3 57	4 57	4 57	5 59	5 59	27
29	3 59	3 59	4 59	4 59	6 1	6 1	28
30	4 1	4 1	5 1	5 1	6 3	6 3	29
31	4 3	4 3	5 3	5 3	6 6	6 5	30

A TABLE of SATURN's Mean Motion.

Com. Years	JULY. Lon. ♄	JULY. An. ♄	AUGUST. Lon. ♄	AUGUST. An. ♄	SEPTEM. Lon. ♄	SEPTEM. An. ♄	Biſſextile.
	° ′	° ′	° ′	° ′	° ′	° ′	
1	6 6	6 5	7 8	7 7	8 10	8 9	0
2	6 8	6 7	7 10	7 9	8 12	8 11	1
3	6 10	6 9	7 12	7 11	8 14	8 13	2
4	6 12	6 11	7 14	7 13	8 16	8 15	3
5	6 14	6 13	7 16	7 15	8 18	8 17	4
6	6 16	6 15	7 18	7 17	8 20	8 19	5
7	6 18	6 17	7 20	7 19	8 22	8 21	6
8	6 20	6 19	7 22	7 21	8 24	8 23	7
9	6 22	6 21	7 24	7 23	8 26	8 25	8
10	6 24	6 23	7 26	7 25	8 28	8 27	9
11	6 26	6 25	7 28	7 27	8 30	8 29	10
12	6 28	6 27	7 30	7 29	8 32	8 31	11
13	6 30	6 29	7 32	7 31	8 34	8 33	12
14	6 32	6 31	7 34	7 33	8 36	8 35	13
15	6 34	6 33	7 36	7 35	8 38	8 37	14
16	6 36	6 35	7 38	7 37	8 40	8 39	15
17	6 38	6 37	7 40	7 39	8 42	8 41	16
18	6 40	6 39	7 42	7 41	8 44	8 43	17
19	6 42	6 41	7 44	7 43	8 46	8 45	18
20	6 44	6 43	7 46	7 45	8 48	8 47	19
21	6 46	6 45	7 48	7 47	8 50	8 49	20
22	6 48	6 47	7 50	7 49	8 52	8 51	21
23	6 50	6 49	7 52	7 51	8 54	8 53	22
24	6 52	6 51	7 54	7 53	8 56	8 55	23
25	6 54	6 53	7 56	7 55	8 58	8 57	24
26	6 56	6 55	7 58	7 57	9 0	8 59	25
27	6 58	6 57	8 0	7 59	9 2	9 1	26
28	7 0	6 59	8 2	8 1	9 4	9 3	27
29	7 2	7 1	8 4	8 3	9 6	9 5	28
30	7 4	7 3	8 6	8 5	9 8	9 7	29
31	7 6	7 5	8 8	8 7	9 11	9 10	30

A TABLE of SATURN's Mean Motion.

Com. Years	OCTOB. Lon. ♄	OCTOB. An. ♄	NOVEM. Lon. ♄	NOVEM. An. ♄	DECEM. Lon. ♄	DECEM. An. ♄	Bissextile.
	o '	o '	o '	o '	o '	o '	
1	9 11	9 10	10 13	10 12	11 13	11 12	0
2	9 13	9 12	10 15	10 14	11 15	11 14	1
3	9 15	9 14	10 17	10 16	11 17	11 16	2
4	9 17	9 16	10 19	10 18	11 19	11 18	3
5	9 19	9 18	10 21	10 20	11 21	11 20	4
6	9 21	9 20	10 23	10 22	11 23	11 22	5
7	9 23	9 22	10 25	10 24	11 25	11 24	6
8	9 25	9 24	10 27	10 26	11 27	11 26	7
9	9 27	9 26	10 29	10 28	11 29	11 28	8
10	9 29	9 28	10 31	10 30	11 31	11 30	9
11	9 31	9 30	10 33	10 32	11 33	11 32	10
12	9 33	9 32	10 35	10 34	11 35	11 34	11
13	9 35	9 34	10 37	10 36	11 37	11 36	12
14	9 37	9 36	10 39	10 38	11 39	11 38	13
15	9 39	9 38	10 41	10 40	11 41	11 40	14
16	9 41	9 40	10 43	10 42	11 43	11 42	15
17	9 43	9 42	10 45	10 44	11 45	11 44	16
18	9 45	9 44	10 47	10 46	11 47	11 46	17
19	9 47	9 46	10 49	10 48	11 49	11 48	18
20	9 49	9 48	10 51	10 50	11 51	11 50	19
21	9 51	9 50	10 53	10 52	11 53	11 52	20
22	9 53	9 52	10 55	10 54	11 55	11 54	21
23	9 55	9 54	10 57	10 56	11 57	11 56	22
24	9 57	9 56	10 59	10 58	11 59	11 58	23
25	9 59	9 58	11 1	11 0	12 1	12 0	24
26	10 1	10 0	11 3	11 2	12 3	12 2	25
27	10 3	10 2	11 5	11 4	12 5	12 4	26
28	10 5	10 4	11 7	11 6	12 7	12 6	27
29	10 7	10 6	11 9	11 8	12 9	12 8	28
30	10 9	10 8	11 11	11 10	12 11	12 10	29
31	10 11	10 10	11 13	11 12	12 13	12 12	30

SATURN'S Mean Motion in Ho. Min. and Sec.

H	Longit. ♄	Anom. ♄	H	Longit. ♄	Anom. ♄
′	° ′ ″	° ′ ″	′	° ′ ″	° ′ ″
1	0 0 5	0 0 5	31	0 2 36	0 2 36
2	0 0 10	0 0 10	32	0 2 41	0 2 41
3	0 0 15	0 0 15	33	0 2 46	0 2 46
4	0 0 20	0 0 20	34	0 2 51	0 2 51
5	0 0 25	0 0 25	35	0 2 56	0 2 56
6	0 0 30	0 0 30	36	0 3 1	0 3 1
7	0 0 35	0 0 35	37	0 3 6	0 3 6
8	0 0 40	0 0 40	38	0 3 11	0 3 11
9	0 0 45	0 0 45	39	0 3 16	0 3 16
10	0 0 50	0 0 50	40	0 3 22	0 3 22
11	0 0 55	0 0 55	41	0 3 27	0 3 27
12	0 1 0	0 1 0	42	0 3 32	0 3 32
13	0 1 5	0 1 5	43	0 3 37	0 3 37
14	0 1 10	0 1 10	44	0 3 42	0 3 42
15	0 1 15	0 1 15	45	0 3 47	0 3 47
16	0 1 20	0 1 20	46	0 3 52	0 3 52
17	0 1 25	0 1 25	47	0 3 57	0 3 57
18	0 1 30	0 1 30	48	0 4 2	0 4 2
19	0 1 35	0 1 35	49	0 4 7	0 4 7
20	0 1 40	0 1 40	50	0 4 12	0 4 12
21	0 1 46	0 1 46	51	0 4 17	0 4 17
22	0 1 51	0 1 51	52	0 4 22	0 4 22
23	0 1 56	0 1 56	53	0 4 27	0 4 27
24	0 2 1	0 2 1	54	0 4 32	0 4 32
25	0 2 6	0 2 6	55	0 4 37	0 4 37
26	0 2 11	0 2 11	56	0 4 42	0 4 42
27	0 2 16	0 2 16	57	0 4 48	0 4 48
28	0 2 21	0 2 21	58	0 4 53	0 4 53
29	0 2 26	0 2 26	59	0 4 58	0 4 58
30	0 2 31	0 2 31	60	0 5 3	0 5 3
″	′ ″ ‴	′ ″ ‴	″	′ ″ ‴	′ ″ ‴

A TABLE of SATURN's Æquation.

Degrees.	Sig. 0. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 1. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 2. Equa. Sub.	Logar. Dist. à ☉ Curt.	Degrees.
	o ' ''		o ' ''		o ' ''		
0	0 0 0	600349	3 7 2	600049	5 31 30	599224	30
1	0 6 30	600349	3 12 46	600029	5 35 7	599188	29
2	0 12 58	600347	3 18 27	600009	5 38 38	599153	28
3	0 19 26	600345	3 24 5	599988	5 42 5	599116	27
4	0 25 54	600342	3 29 38	599968	5 45 26	599080	26
5	0 32 22	600339	3 35 5	599946	5 48 41	599043	25
6	0 38 49	600336	3 40 39	599923	5 51 49	599006	24
7	0 45 15	600331	3 46 4	599900	5 54 53	598968	23
8	0 51 41	600326	3 51 25	599877	5 57 50	598931	22
9	0 58 6	600320	3 56 43	599853	6 0 42	598892	21
10	1 4 30	600313	4 1 57	599828	6 3 26	598853	20
11	1 10 53	600305	4 7 7	599802	6 6 5	598814	19
12	1 17 15	600297	4 12 13	599777	6 8 39	598775	18
13	1 23 36	600289	4 17 15	599749	6 11 6	598735	17
14	1 29 55	600280	4 22 13	599723	6 13 26	598696	16
15	1 36 13	600269	4 27 7	599696	6 15 40	598655	15
16	1 42 35	600260	4 31 57	599669	6 17 47	598615	14
17	1 48 46	600249	4 36 43	599642	6 19 48	598573	13
18	1 55 0	600238	4 41 25	599614	6 21 43	598532	12
19	2 1 12	600225	4 46 2	599586	6 23 31	598490	11
20	2 7 22	600212	4 50 34	599558	6 25 13	598449	10
21	2 13 30	600198	4 55 1	599529	6 26 48	598407	9
22	2 19 37	600184	4 59 23	599489	6 28 15	598365	8
23	2 25 42	600169	5 3 41	599457	6 29 35	598323	7
24	2 31 44	600154	5 7 54	599425	6 30 49	598281	6
25	2 37 43	600138	5 12 3	599392	6 31 57	598238	5
26	2 43 40	600122	5 16 7	599360	6 32 58	598195	4
27	2 49 34	600105	5 20 6	599326	6 33 53	598152	3
28	2 55 26	600087	5 23 58	599292	6 34 41	998109	2
29	3 1 15	600068	5 27 46	599258	6 35 22	598066	1
30	3 7 2	600049	5 31 30	599224	6 35 55	598023	0
	Add		Add		Add.		
	Sig. 11.		Sig. 10		Sig. 9.		

A TABLE of SATURN's Æquation.

Degrees.	Sig. 3. Equa. Sub.	Sig. 3. Logar. Dist. à ☉ Curt.	Sig. 4. Equa. Sub.	Sig. 4. Logar. Dist. à ☉ Curt.	Sig. 5. Equa. Sub.	Sig. 5. Logar. Dist. à ☉ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	6 35 55	598023	5 54 50	596741	3 30 28	595730	30
1	6 36 19	597979	5 51 17	596701	3 24 13	595706	29
2	6 36 36	597936	5 48 16	596661	3 17 54	595683	28
3	6 36 44	597892	5 44 46	596622	3 11 29	595659	27
4	6 36 46	597849	5 41 9	596582	3 5 0	595637	26
5	6 36 42	597805	5 37 26	596543	2 58 27	595616	25
6	6 36 31	597763	5 33 37	596504	2 51 51	595595	24
7	6 36 11	597719	5 29 41	596467	2 45 10	595574	23
8	6 35 44	597675	5 25 37	596429	2 38 26	595556	22
9	6 35 9	597632	5 21 26	596392	2 31 39	595537	21
10	6 34 26	597588	5 17 8	596354	2 24 49	595520	20
11	6 33 36	597545	5 12 44	596318	2 17 55	595503	19
12	6 32 40	597502	5 8 14	596282	2 10 58	595488	18
13	6 31 36	597458	5 3 38	596247	2 3 58	595473	17
14	6 30 25	597415	4 58 56	596211	1 55 55	595459	16
15	6 29 7	597372	4 54 7	596177	1 40 49	595445	15
16	6 27 41	597329	4 49 12	596143	1 42 41	595433	14
17	6 26 7	597286	4 44 11	596110	1 35 30	595421	13
18	6 24 26	597243	4 39 3	596077	1 28 19	595411	12
19	6 22 39	597199	4 33 50	596045	1 21 3	595400	11
20	6 20 45	597157	4 28 51	596013	1 13 47	595392	10
21	6 18 42	597114	4 23 6	595982	1 6 29	595385	9
22	6 16 32	597072	4 17 36	595952	0 59 10	595376	8
23	6 14 14	597029	4 12 1	595922	0 51 49	595369	7
24	6 11 49	596988	4 6 20	595893	0 44 27	595364	6
25	6 9 17	596946	4 0 34	595864	0 37 4	595359	5
26	6 6 37	596905	3 54 43	595835	0 29 40	595356	4
27	6 3 52	596863	3 48 46	595808	0 22 16	595353	3
28	6 0 59	596822	3 42 44	595782	0 14 51	595352	2
29	5 57 58	596781	3 36 38	595756	0 7 26	595351	1
30	5 54 50	596741	3 30 28	595730	0 0 0	595350	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of SATURN's Inclination from the Plan of the Ecliptic, with the proportional Scruples of Latitude.

Argument of Latitude.

Degrees.	Sig. 0. *North Asc.* Sig. 6. *South Asc.* Inclinat.	P. Scr.	Sig. 1. *North Asc.* Sig. 7. *South Asc.* Inclinat.	P. Scr.	Sig. 2. *North Asc.* Sig. 8. *South Asc.* Inclinat.	P. Scr.	Degrees.
	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	
0	0 0 0	0 0	1 15 15	30 0	2 10 19	51 57	30
1	0 2 37	1 3	1 17 31	30 54	2 11 37	52 28	29
2	0 5 15	2 6	1 19 46	31 48	2 12 53	52 58	28
3	0 7 52	3 8	1 21 59	32 41	2 14 6	53 27	27
4	0 10 30	4 11	1 24 10	33 33	2 15 16	53 56	26
5	0 13 6	5 14	1 26 18	34 25	2 16 23	54 23	25
6	0 15 44	6 17	1 28 26	35 15	2 17 28	54 49	24
7	0 18 21	7 19	1 30 32	36 6	2 18 31	55 14	23
8	0 20 57	8 21	1 32 37	36 56	2 19 32	55 38	22
9	0 23 33	9 23	1 34 41	37 45	2 20 30	56 1	21
10	0 26 8	10 25	1 36 43	38 34	2 21 25	56 23	20
11	0 28 42	11 27	1 38 44	39 22	2 22 18	56 44	19
12	0 31 16	12 29	1 40 42	40 9	2 23 8	57 4	18
13	0 33 50	13 30	1 42 38	40 55	2 23 55	57 23	17
14	0 36 23	14 31	1 44 32	41 40	2 24 40	57 40	16
15	0 38 56	15 32	1 46 24	42 26	2 25 22	57 57	15
16	0 41 27	16 32	1 48 15	43 10	2 26 1	58 13	14
17	0 43 59	17 32	1 50 3	43 53	2 26 38	58 28	13
18	0 46 29	18 32	1 51 49	44 35	2 27 12	58 42	12
19	0 48 59	19 32	1 53 34	45 16	2 27 44	58 54	11
20	0 51 27	20 31	1 55 16	45 57	2 28 13	59 5	10
21	0 53 55	21 30	1 56 56	46 37	2 28 40	59 16	9
22	0 56 22	22 29	1 58 34	47 16	2 29 3	59 25	8
23	0 58 48	23 27	2 0 10	47 54	2 29 24	59 33	7
24	1 1 11	24 24	2 1 44	48 32	2 29 41	59 40	6
25	1 3 35	25 21	2 3 16	49 9	2 29 55	59 46	5
26	1 5 57	26 18	2 4 45	49 44	2 30 9	59 52	4
27	1 8 18	27 14	2 6 13	50 18	2 30 19	59 56	3
28	1 10 38	28 10	2 7 37	50 52	2 30 26	59 58	2
29	1 12 57	29 5	2 8 59	51 25	2 30 29	59 59	1
30	1 15 15	30 0	2 10 19	51 57	2 30 30	60 0	0
	Sig. 11. *South Desc.* Sig. 5. *North Desc.*		Sig. 10. *South Desc.* Sig. 4. *North Desc.*		Sig. 9. *South Desc.* Sig. 3. *North Desc.*		

Argument of Latitude.

A TABLE of JUPITER's Mean Motion.

Anni Chr.	Longit. ♃ S.	o	'	Anom. ♃ S.	o	'	Node ♃ S.	o	'
1	5	29	55	0	27	47	3	1	9
101	11	6	13	6	1	51	3	1	31
201	4	12	32	11	5	55	3	1	53
301	9	18	49	4	9	59	3	2	14
401	2	25	7	9	14	3	3	2	36
501	8	1	25	2	18	7	3	2	58
601	1	7	43	7	22	12	3	3	19
701	6	14	1	0	26	16	3	3	41
801	11	20	19	6	0	20	3	4	3
901	4	26	37	11	4	25	3	4	24
1001	10	2	55	4	8	29	3	4	46
1101	3	9	12	9	12	33	3	5	8
1201	8	15	30	2	16	37	3	5	29
1301	1	21	49	7	20	41	3	5	51
1401	6	28	7	0	24	45	3	6	13
1501	0	4	25	5	28	4[illegible]	3	6	34
1601	5	10	43	11	2	5[illegible]	3	6	56
1701	10	17	1	4	6	5[illegible]	3	7	18
1801	3	23	19	9	11	[illegible]	3	7	40
1901	8	29	37	2	15	6	3	8	1
2001	2	5	55	7	19	10	3	8	23

Jupiter's Mean Motion exceeding 20 Years.

20	8	7	16	8	6	49	0	0	4
40	4	14	31	4	13	37	0	0	9
60	0	21	47	0	20	27	0	0	13
80	8	29	3	8	27	16	0	0	17
100	5	6	18	5	4	4	0	0	22
1000	4	2	58	3	10	42	0	3	37

Years to xx.	Longit. ♃ S.	o	'	Anom. ♃ S.	o	'	Node ♃ S.	o	'
1	1	0	21	1	0	19	0	0	0
2	2	0	41	2	0	38	0	0	0
3	3	1	2	3	0	58	0	0	1
B 4	4	1	27	4	1	22	0	0	1
5	5	1	48	5	1	41	0	0	1
6	6	2	8	6	2	0	0	0	1
7	7	2	29	7	2	20	0	0	1
B 8	8	2	54	8	2	43	0	0	2
9	9	3	15	9	3	3	0	0	2
10	10	3	35	10	3	22	0	0	2
11	11	3	56	11	3	41	0	0	2
B 12	0	4	21	0	4	5	0	0	3
13	1	4	42	1	4	25	0	0	1
14	2	5	2	2	4	43	0	0	3
15	3	5	23	3	5	3	0	0	3
B 16	4	5	48	4	5	27	0	0	3
17	5	6	9	5	5	46	0	0	4
18	6	6	30	6	6	6	0	0	4
19	7	6	50	7	6	25	0	0	4
B 20	8	7	16	8	6	49	0	0	4

Years from 1690.

1690	11	13	1	5	3	12	3	7	15
1691	0	13	21	6	3	31	3	7	15
B1692	1	13	41	7	3	50	3	7	15
1693	2	14	6	8	4	14	3	7	16
1694	3	14	27	9	4	34	3	7	16
1695	4	14	48	10	4	52	3	7	16
B1696	5	15	8	11	5	12	3	7	16
1697	6	15	34	0	5	36	3	7	16
1698	7	15	54	1	5	56	3	7	17

A TABLE of JUPITER's Mean Motion.

Years.	Longit. ♑			Anom. ♃			Node ♃		
	S	o	'	S	o	'	S	o	'
1699	8	16	15	2	6	15	3	7	17
B1700	9	16	35	3	6	34	3	7	17
1701	10	17	0	4	6	58	3	7	18
1702	11	17	21	5	7	18	3	7	18
1703	0	17	42	6	7	37	3	7	18
B1704	1	18	2	7	7	55	3	7	18
1705	2	18	28	8	8	20	3	7	19
1706	3	18	48	9	8	39	3	7	19
1707	4	19	9	10	8	58	3	7	19
B1708	5	19	30	11	9	18	3	7	19
1709	6	19	55	0	9	42	3	7	20
1010	7	20	16	1	10	1	3	7	20
1711	8	20	37	2	10	21	3	7	20
B1712	9	20	57	3	10	38	3	7	20
1713	10	21	23	4	11	4	3	7	21
1714	11	21	43	5	11	23	3	7	21
1715	0	22	4	6	11	42	3	7	21
B1716	1	22	24	7	12	1	3	7	21
1717	2	22	49	8	12	26	3	7	21
1718	3	23	10	9	12	42	3	7	22
1719	4	23	31	10	13	4	3	7	22
B1720	5	23	51	11	13	23	3	7	22
1721	6	24	17	0	13	47	3	7	22
1722	7	24	37	1	14	7	3	7	23
1723	8	24	58	2	14	26	3	7	23
B1724	9	25	18	3	14	44	3	7	23
1725	10	25	44	4	15	9	3	7	23
1726	11	26	4	5	15	28	3	7	23
1727	0	26	25	6	15	47	3	7	24
B1728	1	26	46	7	16	7	3	7	24

Years.	Longit. ♑			Anom. ♃			Node ♑		
	S	o	'	S	o	'	S	o	'
1729	2	27	11	8	16	31	3	7	24
1730	3	27	32	9	16	50	3	7	24
1731	4	27	53	10	17	10	3	7	25
B1732	5	28	13	11	17	27	3	7	25
1733	6	28	39	0	17	53	3	7	25
1734	7	28	59	1	18	12	3	7	25
1735	8	29	20	2	18	31	3	7	26
B1736	9	29	40	3	18	50	3	7	26
1737	11	0	6	4	19	16	3	7	26
1738	0	0	26	5	19	34	3	7	26
1739	1	0	47	6	19	53	3	7	27
B1740	2	1	7	7	20	12	3	7	27
1741	3	1	33	8	20	36	3	7	27
1742	4	1	53	9	20	56	3	7	27
1743	5	2	14	10	21	15	3	7	27
B1744	6	2	34	11	21	33	3	7	28
1745	7	2	59	0	21	58	3	7	28
1746	8	3	20	1	22	17	3	7	28
1747	9	3	41	2	22	36	3	7	28
B1748	10	4	2	3	22	56	3	7	28
1749	11	4	27	4	23	20	3	7	29
1750	0	4	48	5	23	39	3	7	29
1751	1	5	9	6	23	59	3	7	29
B1752	2	5	30	7	24	18	3	7	29
1753	3	5	55	8	24	42	3	7	30
1754	4	6	15	9	25	1	3	7	30
1755	5	6	36	10	25	20	3	7	30
B1756	6	6	56	11	25	39	3	7	30
1757	7	7	21	0	26	3	3	7	30
1758	8	7	42	1	26	22	3	7	31

A TABLE of JUPITER's Mean Motion.

Years.	Longit. ♃ S	o	'	Anom. ♃ S	o	'	Node ♃ S	o	'
1759	9	8	3	2	26	42	3	7	31
B1760	10	8	23	3	27	1	3	7	31
1761	11	8	49	4	27	26	3	7	31
1762	0	9	9	5	27	45	3	7	31
1763	1	9	30	6	28	4	3	7	32
B1764	2	9	51	7	28	23	3	7	32
1765	3	10	16	8	28	47	3	7	32
1766	4	10	39	9	29	6	3	7	32
1767	5	10	57	10	29	25	3	7	32
B1768	6	11	18	11	29	45	3	7	33
1769	7	11	48	1	0	9	3	7	33
1770	8	12	4	2	0	28	3	7	33
1771	9	12	25	3	0	48	3	7	33
B1772	10	12	45	4	1	7	3	7	33
1773	11	13	11	5	1	31	3	7	33
1774	0	13	31	6	1	59	3	7	34
1775	1	13	52	7	2	9	3	7	34
B1776	2	14	12	8	2	28	3	7	34
1777	3	14	38	9	2	58	3	7	34
1778	4	14	58	10	3	12	3	7	34
1779	5	15	19	11	3	31	3	7	35
B1780	6	15	39	0	3	50	3	7	35
1781	7	16	5	1	4	14	3	7	35
1782	8	16	25	2	4	34	3	7	35
1783	9	16	46	3	4	53	3	7	36
B1784	10	17	6	4	5	12	3	7	36
1785	11	17	32	5	5	36	3	7	36
1786	0	17	53	6	5	55	3	7	37
1787	1	18	13	7	6	14	3	7	37
B1788	2	18	14	8	6	34	3	7	37
1789	3	18	59	9	6	58	3	7	37
1790	4	19	20	10	7	17	3	7	37
1791	5	19	41	11	7	37	3	7	38
B1792	6	20	1	0	7	55	3	7	38
1793	7	20	26	1	8	19	3	7	38
1794	8	20	47	2	8	39	3	7	38
1795	9	21	1	3	8	58	3	7	39
B1796	10	21	28	4	9	17	3	7	39
1797	11	21	54	5	9	42	3	7	39
1798	0	22	15	6	10	1	3	7	39
1799	1	22	35	7	10	20	3	7	39
B1800	2	22	55	8	10	38	3	7	40
1801	3	23	19	9	11	2	3	7	40
1802	4	23	40	10	11	23	3	7	40
1803	5	24	1	11	11	42	3	7	40
B1804	6	24	21	0	12	2	3	7	40
1805	7	24	47	1	12	26	3	7	41
1806	8	25	7	2	12	45	3	7	41
1807	9	25	28	3	13	4	3	7	41
B1808	10	25	49	4	13	23	3	7	41
1809	11	26	14	5	13	47	3	7	42
1810	0	26	35	6	14	6	3	7	42
1811	1	26	56	7	14	26	3	7	42
B1812	2	27	16	8	14	43	3	7	42
1813	3	27	42	9	15	8	3	7	43
1814	4	28	2	10	15	28	3	7	43
1815	5	28	23	11	15	47	3	7	43
B1816	6	28	43	0	16	6	3	7	43
1817	7	29	9	1	16	30	3	7	43
1818	8	29	29	2	16	49	3	7	44

A TABLE of JUPITER's Mean Motion.

Com. Years	JANUARY. Lon. ♈	JANUARY. An. ♃	FEBRUAR. Lon. ♈	FEBRUAR. An. ♈	MARCH. Lon. ♈	MARCH. An. ♈	Bissextile.
	° ′	° ′	° ′	° ′	° ′	° ′	
1	0 5	0 5	2 40	2 40	4 59	4 59	0
2	0 10	0 10	2 45	2 45	5 4	5 4	1
3	0 15	0 15	2 50	2 50	5 9	5 9	2
4	0 20	0 20	2 55	2 55	5 14	5 14	3
5	0 25	0 25	3 0	3 0	5 19	5 19	4
6	0 30	0 30	3 5	3 5	5 24	5 24	5
7	0 35	0 35	3 10	3 10	5 29	5 29	6
8	0 40	0 40	3 15	3 15	5 34	5 34	7
9	0 45	0 45	3 20	3 20	5 39	5 39	8
10	0 50	0 50	3 25	3 25	5 44	5 44	9
11	0 55	0 55	3 30	3 30	5 49	5 49	10
12	1 0	1 0	3 35	3 35	5 54	5 54	11
13	1 5	1 5	3 40	3 40	5 59	5 59	12
14	1 10	1 10	3 45	3 45	6 4	6 4	13
15	1 15	1 15	3 50	3 50	6 9	6 9	14
16	1 20	1 20	3 55	3 55	6 14	6 14	15
17	1 25	1 25	4 0	4 0	6 19	6 19	16
18	1 30	1 30	4 5	4 5	6 24	6 24	17
19	1 35	1 35	4 10	4 10	6 29	6 29	18
20	1 40	1 40	4 15	4 15	6 34	6 34	19
21	1 45	1 45	4 20	4 20	6 39	6 39	20
22	1 50	1 50	4 25	4 25	6 44	6 44	21
23	1 55	1 55	4 30	4 30	6 49	6 49	22
24	2 0	2 0	4 35	4 35	6 54	6 54	23
25	2 5	2 5	4 40	4 40	6 59	6 59	24
26	2 10	2 10	4 45	4 45	7 4	7 4	25
27	2 15	2 15	4 50	4 50	7 9	7 9	26
28	2 20	2 20	4 55	4 55	7 14	7 14	27
29	2 25	2 25	4 59	4 59	7 19	7 19	28
30	2 30	2 30	0 0	0 0	7 24	7 24	29
31	2 35	2 35	0 0	0 0	7 29	7 29	30

A TABLE of JUPITER's Mean Motion.

Com. Years	APRIL. Lon. ♈	APRIL. An. ♃	MAY. Lon. ♃	MAY. An. ♃	JUNE. Lon. ♐	JUNE. An. ♐	Bissextile.
	° ′	° ′	° ′	° ′	° ′	° ′	
1	7 34	7 34	10 4	10 4	12 38	12 38	0
2	7 39	7 39	10 9	10 9	12 43	12 43	1
3	7 44	7 44	10 14	10 14	12 48	12 48	2
4	7 49	7 49	10 19	10 19	12 53	12 53	3
5	7 54	7 54	10 24	10 24	12 58	12 58	4
6	7 59	7 59	10 29	10 29	13 3	13 3	5
7	8 4	8 4	10 34	10 34	13 8	13 8	6
8	8 9	8 9	10 39	10 39	13 13	13 13	7
9	8 14	8 14	10 44	10 44	13 18	13 18	8
10	8 19	8 19	10 49	10 49	13 23	13 23	9
11	8 24	8 24	10 54	10 54	13 28	13 28	10
12	8 29	8 29	10 59	10 59	13 33	13 33	11
13	8 34	8 34	11 4	11 4	13 38	13 38	12
14	8 39	8 39	11 9	11 9	13 43	13 43	13
15	8 44	8 44	11 14	11 14	13 48	13 48	14
16	8 49	8 49	11 19	11 19	13 53	13 53	15
17	8 54	8 54	11 24	11 24	13 58	13 58	16
18	8 59	8 59	11 29	11 29	14 3	14 3	17
19	9 4	9 4	11 34	11 34	14 8	14 8	18
20	9 9	9 9	11 39	11 39	14 13	14 13	19
21	9 14	9 14	11 44	11 44	14 18	14 18	20
22	9 19	9 19	11 49	11 49	14 23	14 22	21
23	9 24	9 24	11 54	11 54	14 28	14 27	22
24	9 29	9 29	11 59	11 59	14 33	14 32	23
25	9 34	9 34	12 4	12 4	14 38	14 37	24
26	9 39	9 39	12 9	12 9	14 43	14 42	25
27	9 44	9 44	12 14	12 14	14 48	14 47	26
28	9 49	9 49	12 19	12 19	14 53	14 52	27
29	9 54	9 54	12 24	12 24	14 58	14 57	28
30	9 59	9 59	12 29	12 29	15 3	15 2	29
31	10 4	10 4	12 33	12 33	15 8	15 7	30

A TABLE of JUPITER's Mean Motion.

Com. Years	JULY. Lon. ♃	JULY. An. ♃	AUGUST. Lon. ♃	AUGUST. An. ♃	SEPTEMB. Lon. ♐	SEPTEMB. An. ♐	Bissextile.
	o '	o '	o '	o '	o '	o '	
1	15 8	15 7	17 42	17 41	20 17	20 16	0
2	15 13	15 12	17 47	17 46	20 22	20 21	1
3	15 18	15 17	17 52	17 51	20 27	20 26	2
4	15 23	15 22	17 57	17 56	20 32	20 31	3
5	15 28	15 27	18 2	18 1	20 37	20 36	4
6	15 33	15 32	18 7	18 6	20 42	20 41	5
7	15 38	15 37	18 12	18 11	20 47	20 46	6
8	15 43	15 42	18 17	18 16	20 52	20 51	7
9	15 48	15 47	18 22	18 21	20 57	20 56	8
10	15 53	15 52	18 27	18 26	21 2	21 1	9
11	15 58	15 57	18 32	18 31	21 7	21 6	10
12	16 3	16 2	18 37	18 36	21 12	21 11	11
13	16 8	16 7	18 42	18 41	21 17	21 16	12
14	16 13	16 12	18 47	18 46	21 22	21 21	13
15	16 18	16 17	18 52	18 51	21 27	21 26	14
16	16 23	16 22	18 57	18 56	21 32	21 31	15
17	16 28	16 27	19 2	19 1	21 37	21 36	16
18	16 33	16 32	19 7	19 6	21 42	21 41	17
19	16 38	16 37	19 12	19 11	21 47	21 46	18
20	16 43	16 42	19 17	19 16	21 52	21 51	19
21	16 48	16 47	19 22	19 21	21 57	21 56	20
22	16 53	16 52	19 27	19 26	22 2	22 1	21
23	16 58	16 57	19 32	19 31	22 7	22 6	22
24	17 3	17 2	19 37	19 36	22 12	22 11	23
25	17 8	17 7	19 42	19 41	22 17	22 16	24
26	17 13	17 12	19 47	19 46	22 22	22 21	25
27	17 18	17 17	19 52	19 51	22 27	22 26	26
28	17 23	17 22	19 57	19 56	22 32	22 31	27
29	17 28	17 27	20 2	20 1	22 37	22 36	28
30	17 33	17 32	20 7	20 6	22 42	22 41	29
31	17 37	17 36	20 12	20 11	22 47	22 46	30

A TABLE of JUPITER's Mean Motion.

Com. Years	OCTOBER. Lon. ♃	OCTOBER. An. ♃	NOVEMB. Lon. ♃	NOVEMB. An. ♃	NOVEMB. Lon. ♃	NOVEMB. An. ♃	Biſſextile.
	° '	° '	° '	° '	° '	° '	
1	22 47	22 46	25 21	25 20	27 51	27 50	0
2	22 52	22 51	25 26	25 25	27 56	27 55	1
3	22 57	22 56	25 31	25 30	28 1	28 0	2
4	23 2	23 1	25 36	25 35	28 6	28 5	3
5	23 7	23 6	25 41	25 40	28 11	28 10	4
6	23 12	23 11	25 46	25 45	28 16	28 15	5
7	23 17	23 16	25 51	25 50	28 21	28 20	6
8	23 22	23 21	25 56	25 55	28 26	28 25	7
9	23 27	23 26	26 1	26 0	28 31	28 30	8
10	23 32	23 31	26 6	26 5	28 36	28 35	9
11	23 37	23 36	26 11	26 10	28 41	28 40	10
12	23 42	23 41	26 16	26 15	28 46	28 45	11
13	23 47	23 46	26 21	26 20	28 51	28 50	12
14	23 52	23 51	26 26	26 25	28 56	28 55	13
15	23 57	23 56	26 31	26 30	29 1	29 0	14
16	24 2	24 1	26 36	26 35	29 6	29 5	15
17	24 7	24 6	26 41	26 40	29 11	29 10	16
18	24 12	24 11	26 46	26 45	29 16	29 15	17
19	24 17	24 16	26 51	26 50	29 21	29 20	18
20	24 22	24 21	26 56	26 55	29 26	29 25	19
21	24 27	24 26	27 1	27 0	29 31	29 30	20
22	24 32	24 31	27 6	27 5	29 36	29 35	21
23	24 37	24 36	27 11	27 10	29 41	29 40	22
24	24 42	24 41	27 16	27 15	29 46	29 45	23
25	24 46	24 45	27 21	27 20	29 51	29 50	24
26	24 51	24 50	27 26	27 25	29 56	29 55	25
27	24 56	24 55	27 31	27 30	30 1	30	26
28	25 1	25 0	27 36	27 35	30 6	30	27
29	25 6	25 5	27 41	27 40	30 11	30 1	28
30	25 11	25 10	27 46	27 45	30 16	30 1	29
31	25 16	25 15	27 51	27 50	30 21	30 2	30

A TABLE of JUPITER's Mean Motion, in Hours Minutes and Seconds.

H	Longit. ♃			Anom. ☌			′	Longit. ♃			Anom. ☌		
′	o	′	″	o	′	″	″	o	′	″	o	′	″
1	0	0	12	0	0	12	31	0	6	27	0	6	27
2	0	0	25	0	0	25	32	0	6	40	0	6	40
3	0	0	35	0	0	37	33	0	6	52	0	6	52
4	0	0	50	0	0	50	34	0	7	5	0	7	5
5	0	1	2	0	1	2	35	0	7	17	0	7	17
6	0	1	15	0	1	15	36	0	7	30	0	7	30
7	0	1	27	0	1	27	37	0	7	42	0	7	42
8	0	1	40	0	1	42	38	0	7	55	0	7	55
9	0	1	52	0	1	52	39	0	8	7	0	8	7
10	0	2	5	0	2	5	40	0	8	20	0	8	20
11	0	2	17	0	2	17	41	0	8	32	0	8	32
12	0	2	30	0	2	30	42	0	8	44	0	8	44
13	0	2	42	0	2	42	43	0	8	57	0	8	57
14	0	2	55	0	2	55	44	0	9	9	0	9	9
15	0	3	7	0	3	7	45	0	9	22	0	9	22
16	0	3	20	0	3	20	46	0	9	34	0	9	34
17	0	3	32	0	3	32	47	0	9	47	0	9	47
18	0	3	44	0	3	44	48	0	9	59	0	9	59
19	0	3	57	0	3	57	49	0	10	12	0	10	12
20	0	4	9	0	4	9	50	0	10	24	0	10	24
21	0	4	22	0	4	22	51	0	10	37	0	10	37
22	0	4	34	0	4	34	52	0	10	50	0	10	50
23	0	4	47	0	4	47	53	0	11	2	0	11	2
24	0	4	59	0	4	59	54	0	11	15	0	11	15
25	0	5	12	0	5	12	55	0	11	27	0	11	27
26	0	5	24	0	5	24	56	0	11	40	0	11	40
27	0	5	37	0	5	37	57	0	11	52	0	11	52
28	0	5	50	0	5	50	58	0	12	5	0	12	5
29	0	6	2	0	6	2	59	0	12	17	0	12	17
30	0	6	15	0	6	15	60	0	12	30	0	12	30
″	′	″	‴	′	″	‴	‴	′	″	‴	′	″	‴

A TABLE of JUPITER's Equation.

Degrees.	Sig. 0. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 1. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 2. Equa. Sub.	Logar. Dist. à ☉ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	0 0 0	573765	2 37 19	573515	4 37 33	572820	30
1	0 5 26	573765	2 42 7	573499	4 40 31	572791	29
2	0 10 54	573764	2 46 54	573481	4 43 26	572762	28
3	0 16 22	573762	2 51 37	573464	4 46 14	572732	27
4	0 21 49	573759	2 56 15	573446	4 48 57	572701	26
5	0 27 15	573757	3 0 53	573428	4 51 36	572671	25
6	0 32 42	573754	3 5 27	573409	4 54 11	572640	24
7	0 38 7	573750	3 9 59	573389	4 56 42	572608	23
8	0 43 31	573745	3 14 28	573369	4 59 5	572577	22
9	0 48 56	573741	3 18 54	573349	5 1 24	572545	21
10	0 54 19	573735	3 23 16	573329	5 3 39	572513	20
11	0 59 42	573729	3 27 34	573307	5 5 47	572480	19
12	1 5 4	573723	3 31 48	573285	5 7 50	572447	18
13	1 10 25	573716	3 36 0	573263	5 9 49	572414	17
14	1 15 45	573708	3 40 9	573240	5 11 42	572381	16
15	1 21 2	573700	3 44 14	573217	5 13 29	572347	15
16	1 26 19	573692	3 48 14	573194	5 15 5	572314	14
17	1 31 35	573683	3 52 13	573169	5 16 41	572280	13
18	1 36 49	573673	3 56 7	573145	5 18 12	572245	12
19	1 42 2	573663	3 59 56	573120	5 19 44	572211	11
20	1 47 13	573652	4 3 44	573095	5 21 4	572177	10
21	1 52 23	573640	4 7 27	573070	5 22 17	572142	9
22	1 57 31	573628	4 11 4	573044	5 23 26	572107	8
23	2 2 37	573616	4 14 38	573016	5 24 28	572072	7
24	2 7 40	573603	4 18 6	572990	5 25 25	572037	6
25	2 12 41	573590	4 21 30	572963	5 26 15	572000	5
26	2 17 40	573576	4 24 51	572936	5 27 0	571966	4
27	2 22 38	573561	4 28 8	572907	5 27 39	571929	3
28	2 27 32	573546	4 31 20	572878	5 28 12	571893	2
29	2 32 26	573531	4 34 29	572850	5 28 40	571857	1
30	2 37 19	573515	4 37 33	572820	5 29 4	571820	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of JUPITER's Equation.

Degrees.	Sig. 3. Equa. Sub.	Sig. 3. Logar. Dist. à ⊙ Curt.	Sig. 4. Equa. Sub.	Sig. 4. Logar. Dist. à ⊙ Curt.	Sig. 5. Equa. Sub.	Sig. 5. Logar. Dist. à ⊙ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	5 29 4	571820	4 52 54	570754	2 52 43	569920	30
1	5 29 19	571784	4 50 8	570720	2 47 33	569901	29
2	5 29 28	571748	4 47 18	570686	2 42 20	569881	28
3	5 29 34	571712	4 44 22	570653	2 37 3	569862	27
4	5 29 30	571676	4 41 20	570621	2 31 44	569853	26
5	5 29 26	571641	4 38 13	570590	2 26 21	569825	25
6	5 29 16	571604	4 35 0	570558	2 20 54	569808	24
7	5 28 46	571568	4 31 40	570526	2 15 26	569791	23
8	5 28 19	571532	4 28 16	570495	2 9 54	569776	22
9	5 27 47	571495	4 24 46	570464	2 4 18	569761	21
10	5 27 9	571458	4 21 10	570434	1 58 39	569747	20
11	5 26 2	571423	4 17 30	570404	1 52 59	569733	19
12	5 25 33	571386	4 13 45	570374	1 47 16	569721	18
13	5 24 36	571349	4 9 54	570345	1 41 32	569708	17
14	5 23 32	571313	4 5 59	570317	1 35 47	569696	16
15	5 22 22	571277	4 2 0	570288	1 29 58	569685	15
16	5 21 6	571242	3 57 55	570260	1 24 7	569674	14
17	5 19 44	571206	3 53 44	570232	1 18 15	569664	13
18	5 18 17	571170	3 49 30	570205	1 12 20	569655	12
19	5 16 39	571134	3 45 9	570178	1 6 24	569647	11
20	5 15 2	571099	3 40 44	570152	1 0 26	569639	10
21	5 13 17	571064	3 36 15	570126	0 54 26	569632	9
22	5 11 27	571029	3 31 40	570101	0 48 26	569626	8
23	5 9 29	570994	3 27 3	570077	0 42 25	569621	7
24	5 7 25	570959	3 22 21	570053	0 36 24	569616	6
25	5 5 14	570925	3 17 38	570029	0 30 22	569612	5
26	5 2 57	570890	3 12 44	570006	0 24 18	569609	4
27	5 0 35	570856	3 7 50	569984	0 18 14	569608	3
28	4 58 1	570822	3 2 51	569962	0 10 10	569606	2
29	4 55 23	570787	2 57 49	569941	0 6 5	569605	1
30	4 52 54	570754	2 52 43	569920	0 0 0	569605	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of JUPITER's Inclination from the Plan of the Ecliptic, with the proportional Scruples of Latitude.

Argument of Latitude.

Degrees.	Sig. 0. *North Asc.* Sig. 6. *South Asc.* Inclinat.	P. Scr.	Sig. 1. *North Asc.* Sig. 7. *South Asc.* Inclinat.	P. Scr.	Sig. 2. *North Asc.* Sig. 8. *South Asc.* Inclinat.	P. Scr.	Degrees.
	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	
0	0 0 0	0 0	0 40 58	30 0	1 10 57	51 57	30
1	0 1 26	1 3	0 42 12	30 54	1 11 39	52 28	29
2	0 2 51	2 6	0 43 25	31 47	1 12 20	52 58	28
3	0 4 17	3 8	0 44 38	32 39	1 13 0	23 27	27
4	0 5 42	4 11	0 45 50	33 32	1 13 38	53 56	26
5	0 7 8	5 14	0 47 1	34 24	1 14 15	54 24	25
6	0 8 33	6 17	0 48 10	35 15	1 14 50	54 49	24
7	0 9 59	7 19	0 49 18	36 6	1 15 24	55 14	23
8	0 11 24	8 21	0 50 27	36 56	1 15 57	55 38	22
9	0 12 49	9 23	0 51 34	37 45	1 16 28	56 1	21
10	0 14 14	10 25	0 52 40	38 34	1 16 59	56 23	20
11	0 15 38	11 27	0 53 45	39 21	1 17 28	56 44	19
12	0 17 1	12 29	0 54 50	40 9	1 17 55	57 4	18
13	0 18 25	13 30	0 55 53	40 55	1 18 21	57 23	17
14	0 19 49	14 31	0 56 55	41 41	1 18 45	57 40	16
15	0 21 12	15 32	0 57 58	42 26	1 19 7	57 57	15
16	0 22 35	16 32	0 58 59	43 10	1 19 30	58 13	14
17	0 23 58	17 32	0 59 58	43 53	1 19 50	58 28	13
18	0 25 19	18 32	1 0 55	44 35	1 20 9	58 42	12
19	0 26 41	19 31	1 1 50	45 17	1 20 26	58 54	11
20	0 28 2	20 30	1 2 46	45 58	1 20 41	59 5	10
21	0 29 22	21 29	1 3 41	46 38	1 20 55	59 16	9
22	0 30 41	22 27	1 4 34	47 17	1 21 7	59 25	8
23	0 32 1	23 25	1 5 26	47 55	1 21 18	59 33	7
24	0 33 19	24 23	1 6 17	48 32	1 21 28	59 40	6
25	0 34 37	25 21	1 7 7	49 9	1 21 37	59 46	5
26	0 35 55	26 18	1 7 55	49 45	1 21 44	59 52	4
27	0 37 12	27 14	1 8 42	50 19	1 21 49	59 56	3
28	0 38 29	28 10	1 9 29	50 53	1 21 53	59 58	2
29	0 39 44	29 5	1 10 13	51 25	1 21 55	59 59	1
30	0 40 58	30 0	1 10 57	51 57	1 21 56	60 0	0
	Sig. 11. *South Desc.* Sig. 5. *North Desc.*		Sig. 10. *South Desc.* Sig. 4. *North Desc.*		Sig. 9. *South Desc.* Sig. 3. *North Desc.*		

Argument of Latitude.

A TABLE of MARS's Mean Motion.

Epocha or Radices

Anni Christ	Longit.	♂	Anom.	♂	Node	♂
	S	o '	S	o '	S	o '
1	1	10 13	9	13 36	0	27 21
101	3	11 53	11	13 14	0	28 33
201	5	13 32	1	12 52	0	29 46
301	7	15 12	3	12 31	1	0 59
401	9	16 51	5	12 8	1	2 11
501	11	18 31	7	11 47	1	3 24
601	1	20 10	9	11 24	1	4 37
701	3	21 50	11	11 3	1	5 49
801	5	23 29	1	10 41	1	7 2
901	7	25 9	3	10 19	1	8 15
1001	9	26 48	5	9 57	1	9 27
1101	11	28 28	7	9 35	1	10 40
1201	2	0 7	9	9 13	1	11 52
1301	4	1 47	11	8 51	1	13 5
1401	6	3 26	1	8 29	1	14 18
1501	8	5 6	3	8 7	1	15 31
1601	10	6 45	5	7 45	1	16 43
1701	0	8 25	7	7 23	1	17 56
1801	2	10 4	9	7 1	1	19 9
1901	4	11 44	11	6 40	1	20 22
2001	6	13 23	1	6 18	1	21 34

Mars's *Mean Motion exceeding* 20 *Years.*

2c	7	18 20	7	17 56	0	0	14
4c	3	6 40	3	5 52	0	0	29
6c	10	25 0	10	23 47	0	0	44
8c	6	13 20	6	11 43	0	0	58
10c	2	1 40	1	29 39	0	1	13
100c	8	16 35	7	26 21	0	12	7

Mars's Mean Motion to 20 Years,

	Years.	Longit.	♂	Anom.	♂	Node	♂
		S	o '	S	o ,	S	o '
	1	6	11 17	6	11 16	0	0 1
	2	0	22 34	0	22 32	0	0 1
	3	7	3 51	7	3 48	0	0 2
B	4	1	15 40	1	15 35	0	0 3
	5	7	26 57	7	26 51	0	0 4
	6	2	8 14	2	8 7	0	0 4
	7	8	19 31	8	19 23	5	0 5
B	8	3	1 20	3	1 10	6	0 6
	9	9	12 37	9	12 26	7	0 7
	10	3	23 54	3	23 42	0	0 7
	11	10	5 11	10	4 58	0	0 8
B	12	4	17 0	4	16 45	0	0 9
	13	10	28 17	10	28 1	0	0 9
	14	5	9 34	5	9 17	0	0 10
	15	11	20 51	11	20 33	0	0 11
B	16	6	2 40	6	2 21	0	0 11
	17	0	13 57	0	13 36	0	0 12
	18	6	25 14	6	24 52	0	0 13
	19	1	6 31	1	6 8	0	0 13
B	20	7	18 20	7	17 55	0	0 14

Years from 1690.

1690	2	2 42	9	1 54	1	17	48
1691	8	13 59	3	13 10	1	17	49
B1692	2	25 16	9	24 26	1	17	49
1693	9	7 5	4	6 13	1	17	50
1694	3	18 22	10	17 29	1	17	51
1695	9	29 39	4	28 45	1	17	52
B1696	4	10 56	11	10 1	1	17	52
1697	10	22 44	5	21 48	1	17	53
1698	5	4 2	0	3 4	1	17	54

A TABLE of MAR S's Mean Motion.

Years.	Longit. ♂ S	o	'	Anom. ♂ S	o	'	Node ♂ S	o	'
1699	11	15	19	6	14	20	1	17	55
B1700	5	26	36	0	25	36	1	17	56
1701	0	8	25	7	7	23	1	17	56
1702	6	19	42	1	18	39	1	17	57
1703	1	0	59	7	29	55	1	17	57
B1704	7	12	16	2	11	11	1	17	58
1705	1	24	4	8	22	58	1	17	59
1706	8	5	22	3	4	14	1	18	0
1707	2	16	39	9	15	30	1	18	0
B1708	8	27	56	3	26	46	1	18	1
1709	3	9	44	10	8	33	1	18	2
1710	9	21	2	7	19	49	1	18	3
1711	4	2	19	11	1	5	1	18	4
B1712	10	13	36	5	12	21	1	18	4
1713	4	25	24	11	24	8	1	18	5
1714	11	6	42	6	5	24	1	18	6
1715	5	17	59	0	16	40	1	18	7
B1716	11	29	16	6	27	56	1	18	7
1717	6	11	4	1	9	43	1	18	8
1718	0	22	22	7	20	59	1	18	9
1719	7	3	39	2	2	15	1	18	10
B1720	1	14	56	8	13	31	1	18	10
1721	7	26	44	2	25	19	1	18	11
1722	2	8	2	9	6	35	1	18	12
1723	8	19	19	3	17	51	1	18	12
B1724	3	0	36	9	29	7	1	18	13
1725	9	12	24	4	10	54	1	18	14
1726	3	23	42	10	22	11	1	18	15
1727	10	4	59	5	3	26	1	18	15
B1728	4	16	16	11	14	42	1	18	16

Years.	Longit. ♂ S	o	'	Anom. ♂ S	o	'	Node ♂ S	o	'
1729	10	28	5	5	26	29	1	18	17
1730	5	9	22	0	7	45	1	18	18
1731	11	20	39	6	19	2	1	18	19
B1732	6	1	56	1	0	18	1	18	19
1733	0	13	44	7	12	5	1	18	20
1734	6	25	2	1	23	21	1	18	21
1735	1	6	19	8	4	37	1	18	21
B1736	7	17	36	2	15	58	1	18	22
1737	1	29	24	8	27	40	1	18	23
1738	8	10	42	3	8	56	1	18	23
1739	2	21	59	9	20	12	1	18	24
B1740	9	3	16	4	1	28	1	18	25
1741	3	15	4	10	13	15	1	18	25
1742	9	26	22	4	24	31	1	18	26
1743	4	7	39	11	5	47	1	18	27
B1744	10	18	56	5	17	3	1	18	28
1745	0	0	44	11	28	50	1	18	28
1746	11	12	2	6	10	6	1	18	29
1707	5	23	19	0	21	22	1	18	30
B1708	0	4	36	7	2	38	1	18	31
1709	6	16	24	1	14	25	1	18	31
1750	0	27	42	7	25	41	1	18	32
1751	7	8	59	2	6	57	1	18	33
B1752	1	20	16	8	18	13	1	18	34
1753	8	2	4	3	0	0	1	18	34
1754	2	13	22	9	11	16	1	18	35
1755	8	24	39	3	22	32	1	18	36
B1756	3	5	56	10	3	48	1	18	36
1757	9	17	44	4	15	35	1	18	37
1758	3	29	1	10	26	51	1	18	38

A TABLE of MARS's Mean Motion.

Years.	Longit. ♂			Anom. ♂			Node ♂		
	S	o	'	S	o	'	S	o	'
1759	10	10	19	5	8	7	1	18	39
B1760	4	21	36	11	19	23	1	18	40
1761	11	3	24	6	1	10	1	18	40
1762	5	14	42	0	12	26	1	18	41
1763	11	25	59	6	23	42	1	18	41
B1764	6	7	16	1	4	58	1	18	42
1765	0	19	4	7	16	45	1	18	43
1766	7	0	22	1	28	2	1	18	44
1767	1	11	39	8	9	17	1	18	44
B1768	7	22	56	2	20	33	1	18	45
1769	2	4	44	9	2	20	1	18	46
1770	8	16	2	3	13	36	1	18	47
1771	2	27	19	9	24	52	1	18	48
1772	9	8	36	4	6	8	1	18	48
B1773	3	20	24	10	17	55	1	18	49
1774	10	1	42	4	29	11	1	18	50
1775	4	12	59	11	10	27	1	18	51
B1776	10	24	16	5	21	43	1	18	51
1777	5	6	4	0	3	30	1	18	52
1778	11	17	22	6	14	46	1	18	52
1779	5	28	39	0	26	2	1	18	53
B1780	0	9	56	7	7	19	1	18	54
1781	6	21	44	1	19	6	1	18	54
1782	1	3	2	8	0	22	1	18	55
1783	7	14	19	2	11	38	1	18	56
B1784	1	25	36	8	22	54	1	18	56
1785	8	7	24	3	4	41	1	18	57
1786	2	18	42	9	15	58	1	18	58
1787	8	29	59	3	27	13	1	18	58
B1788	3	11	16	10	8	29	1	18	59
1789	9	23	4	4	20	16	1	19	0
1790	4	4	22	11	1	32	1	19	1
1791	10	15	39	5	12	48	1	19	2
B1792	4	26	56	11	24	4	1	19	2
1793	11	8	44	6	5	51	1	19	3
1794	5	20	2	0	17	7	1	19	4
1795	0	1	19	6	28	23	1	19	5
B1796	6	12	36	1	9	29	1	19	6
1797	0	24	24	7	21	26	1	19	6
1798	7	5	42	2	2	42	1	19	7
1799	1	16	59	8	13	58	1	19	8
B1800	7	28	16	2	25	14	1	19	8
1801	2	10	4	9	7	1	1	19	9
1802	8	21	22	3	18	17	1	19	10
1803	3	2	39	9	29	33	1	19	10
B1804	9	13	56	4	10	49	1	19	11
1805	3	25	44	10	22	36	1	19	12
1806	10	7	2	5	3	53	1	19	13
1807	4	18	19	11	15	8	1	19	13
B1808	10	29	36	5	26	24	1	19	14
1809	5	11	24	0	8	11	1	19	15
1810	11	22	42	6	19	27	1	19	16
1811	6	3	59	1	0	43	1	19	17
B1812	0	15	16	7	11	59	1	19	17
1813	6	27	4	1	23	46	1	19	18
1814	1	8	22	8	5	2	1	19	19
1815	7	19	39	2	16	18	1	19	20
B1816	2	27	34	8	27	34	1	19	20
1817	8	9	21	3	9	21	1	19	21
1818	2	20	37	9	20	37	1	19	22

A TABLE of MARS's Mean Motion.

Com. Years	JANUARY. Longit. ☌ S	°	′	Anom. ☌ S	°	′	FEBRUARY. Longit. ☌ S	°	′	Anom. ☌ S	°	′	MARCH. Longit. ☌ S	°	′	Anom. ☌ S	°	′	Bissextile.
1	0	0	31	0	0	31	0	16	46	0	16	46	1	1	27	1	1	27	0
2	0	1	3	0	1	3	0	17	18	0	17	18	1	1	58	1	1	58	1
3	0	1	34	0	1	34	0	17	49	0	17	49	1	2	29	1	2	29	2
4	0	2	6	0	2	6	0	18	21	0	18	21	1	3	1	1	3	1	3
5	0	2	37	0	2	37	0	18	52	0	18	52	1	3	32	1	3	32	4
6	0	3	9	0	3	9	0	19	24	0	19	24	1	4	4	1	4	4	5
7	0	3	40	0	3	40	0	19	55	0	19	55	1	4	35	1	4	35	6
8	0	4	11	0	4	11	0	20	26	0	20	26	1	5	6	1	5	6	7
9	0	4	43	0	4	43	0	20	58	0	20	58	1	5	38	1	5	38	8
10	0	5	14	0	5	14	0	21	29	0	21	29	1	6	9	1	6	9	9
11	0	5	46	0	5	46	0	22	1	0	22	1	1	6	41	1	6	41	10
12	0	6	17	0	6	17	0	22	32	0	22	32	1	7	12	1	7	12	11
13	0	6	49	0	6	49	0	23	4	0	23	4	1	7	44	1	7	44	12
14	0	7	20	0	7	20	0	23	35	0	23	35	1	8	15	1	8	15	13
15	0	7	52	0	7	52	0	24	7	0	24	7	1	8	47	1	8	47	14
16	0	8	23	0	8	23	0	24	38	0	24	38	1	9	18	1	9	18	15
17	0	8	55	0	8	55	0	25	10	0	25	10	1	9	50	1	9	50	16
18	0	9	26	0	9	26	0	25	41	0	25	41	1	10	21	1	10	21	17
19	0	9	57	0	9	57	0	26	12	0	26	12	1	10	52	1	10	52	18
20	0	10	29	0	10	29	0	26	44	0	26	44	1	11	24	1	11	24	19
21	0	11	0	0	11	0	0	27	15	0	27	15	1	11	55	1	11	55	20
22	0	11	32	0	11	32	0	27	47	0	27	47	1	12	27	1	12	27	21
23	0	12	3	0	12	3	0	28	18	0	28	18	1	12	58	1	12	58	22
24	0	12	35	0	12	35	0	28	50	0	28	50	1	13	30	1	13	30	23
25	0	13	6	0	13	6	0	29	21	0	29	21	1	14	1	1	14	1	24
26	0	13	38	0	13	38	0	29	53	0	29	53	1	14	33	1	14	33	25
27	0	14	9	0	14	9	0	0	24	0	0	24	1	15	4	1	15	4	26
28	0	14	40	0	14	40	0	0	55	0	0	55	1	15	35	2	15	35	27
29	0	15	12	0	15	12	0	1	27	0	1	27	1	16	7	1	16	7	28
30	0	15	43	0	15	43	0	0	0	0	0	0	1	16	38	1	16	38	29
31	0	16	15	0	16	15	0	0	0	0	0	0	1	17	10	1	17	10	30

A TABLE of MARS's Mean Motion.

Com. Years	APRIL. Longit. ☌ S o '	APRIL. Anom. ☌ S o '	MAY. Longit. ☌ S o '	MAY. Anom. ☌ S o '	JUNE. Longit. ☌ S o '	JUNE. Anom. ☌ S o '	Biſſextile.
1	1 17 41	1 17 41	2 3 24	2 3 24	2 19 39	2 19 39	0
2	1 18 13	1 18 13	2 3 56	2 3 56	2 20 11	2 20 11	1
3	1 18 44	1 18 44	2 4 27	2 4 27	2 20 42	2 20 42	2
4	1 19 16	1 19 16	2 4 59	2 4 59	2 21 14	2 21 14	3
5	1 19 47	1 19 47	2 5 30	2 5 30	2 21 45	2 21 45	4
6	1 20 19	1 20 19	2 6 2	2 6 2	2 22 17	2 22 17	5
7	1 20 50	1 20 50	2 6 33	2 6 33	2 22 48	2 22 48	6
8	1 21 21	1 21 21	2 7 4	2 7 4	2 23 19	2 23 19	7
9	1 21 53	1 21 53	2 7 36	2 7 36	2 23 53	2 23 53	8
10	1 22 24	1 22 24	2 8 7	2 8 7	2 24 22	2 24 22	9
11	1 22 56	1 22 56	2 8 39	2 8 39	2 24 54	2 24 54	10
12	1 23 27	1 23 27	2 9 10	2 9 10	2 25 25	2 25 25	11
13	1 23 59	1 23 59	2 9 42	2 9 42	2 25 57	2 25 57	12
14	1 24 30	1 24 30	2 10 13	2 10 13	2 26 28	2 26 28	13
15	1 25 2	1 25 2	2 10 45	2 10 45	2 27 0	2 27 0	14
16	1 25 33	1 25 33	2 11 16	2 11 16	2 27 31	2 27 31	15
17	1 26 5	1 26 5	2 11 48	2 11 48	2 28 3	2 28 3	16
18	1 26 36	1 26 36	2 12 19	2 12 19	2 28 34	2 28 34	17
19	1 27 7	1 27 7	2 12 50	2 12 50	2 29 5	2 29 5	18
20	1 27 39	1 27 39	2 13 22	2 13 22	2 29 37	2 29 37	19
21	1 28 10	1 28 10	2 13 53	2 13 53	3 0 8	3 0 8	20
22	1 28 42	1 28 42	2 14 25	2 14 25	3 0 40	3 0 40	21
23	1 29 13	1 29 13	2 14 56	2 14 56	3 1 11	3 1 11	22
24	1 29 45	1 29 45	2 15 28	2 15 28	3 1 43	3 1 43	23
25	2 0 16	2 0 16	2 15 59	2 15 59	3 2 14	3 2 14	24
26	2 0 48	2 0 48	2 16 31	2 16 31	3 2 46	3 2 46	25
27	2 1 19	2 1 19	2 17 2	2 17 2	3 3 17	3 3 17	26
28	2 1 50	2 1 50	2 17 33	2 17 33	3 3 48	3 3 48	27
29	2 2 22	2 2 22	2 18 5	2 18 5	3 4 20	3 4 20	28
30	2 2 53	2 2 53	2 18 36	2 18 36	3 4 51	3 4 51	29
31	2 3 24	2 3 24	2 19 8	2 19 8	3 5 23	3 5 23	30

A TABLE of MARS's Mean Motion.

Com. Years	JULY. Longit. ♂ S o '	JULY. Anom. ♂ S o '	AUGUST. Longit. ♂ S o '	AUGUST. Anom. ♂ S o '	SEPTEMBER. Longit. ♂ S o '	SEPTEMBER. Anom. ♂ S o '	Bissextile.
1	3 5 23	3 5 22	3 21 37	3 21 36	4 7 52	4 7 51	0
2	3 5 54	3 5 53	3 22 9	3 22 8	4 8 24	4 8 23	1
3	3 6 25	3 6 24	3 22 40	3 22 39	4 8 55	4 8 54	2
4	3 6 56	3 6 55	3 23 12	3 23 11	4 9 27	4 9 26	3
5	3 7 28	3 7 27	3 23 43	3 23 42	4 9 58	4 9 57	4
6	3 8 0	3 7 59	3 24 15	3 24 14	4 10 30	4 10 29	5
7	3 8 31	3 8 30	3 24 46	3 24 45	4 11 1	4 11 0	6
8	3 9 2	3 9 1	3 25 17	3 25 16	4 11 32	4 11 31	7
9	3 9 34	3 9 33	3 25 49	3 25 48	4 12 4	4 12 3	8
10	3 10 5	3 10 4	3 26 20	3 26 19	4 12 35	4 12 34	9
11	3 10 37	3 10 36	3 26 52	3 26 51	4 13 7	4 13 6	10
12	3 11 8	3 11 7	3 27 23	3 27 22	4 13 58	4 13 57	11
13	3 11 40	3 11 39	3 27 55	3 27 54	4 14 10	4 14 9	12
14	3 12 11	3 12 10	3 28 26	3 28 25	4 14 41	4 14 40	13
15	3 12 43	3 12 42	3 28 58	3 28 57	4 15 13	4 15 12	14
16	3 13 14	3 13 13	3 29 29	3 29 28	4 15 44	4 15 43	15
17	3 13 46	3 13 45	4 0 1	4 0 0	4 16 16	4 16 15	16
18	3 14 17	3 14 16	4 0 32	4 0 31	4 16 47	4 16 46	17
19	3 14 48	3 14 47	4 1 3	4 1 2	4 17 18	4 17 17	18
20	3 15 20	3 15 19	4 1 35	4 1 34	4 17 50	4 17 49	19
21	3 15 51	3 15 50	4 2 6	4 2 5	4 18 21	4 18 20	20
22	3 16 23	3 16 22	4 2 38	4 2 37	4 18 53	4 18 52	21
23	3 16 54	3 16 53	4 3 9	4 3 8	4 19 24	4 19 23	22
24	3 17 26	3 17 25	4 3 41	4 3 40	4 19 56	4 19 55	23
25	3 17 57	3 17 56	4 4 12	4 4 11	4 20 27	4 20 26	24
26	3 18 29	3 18 28	4 4 44	4 4 43	4 20 59	4 20 58	25
27	3 19 0	3 18 59	4 5 15	4 5 14	4 21 30	4 21 29	26
28	3 19 31	3 19 30	4 5 46	4 5 45	4 22 1	4 22 0	27
29	3 20 3	3 20 2	4 6 18	4 6 17	4 22 33	4 22 32	28
30	3 20 34	3 20 33	4 6 49	4 6 48	4 23 4	4 23 3	29
31	3 21 6	3 21 5	4 7 21	4 7 20	4 23 35	4 23 34	30

A TABLE of MARS's Mean Motion.

Com. Years	OCTOBER. Longit. ♂ S o '	OCTOBER. Anom. ♂ S o '	NOVEMBER. Longit. ♂ S o '	NOVEMBER. Anom. ♂ S o '	DECEMBER. Longit. ♂ S o '	DECEMBER. Anom. ♂ S o '	Biſſextile.
1	4 23 35	4 23 34	5 9 50	5 9 49	5 25 33	5 25 32	0
2	4 24 7	4 24 6	5 10 22	5 10 21	5 26 5	5 26 4	1
3	4 24 38	4 24 37	5 10 53	5 10 52	5 26 36	5 26 35	2
4	4 25 10	4 25 9	5 11 25	5 11 24	5 27 8	5 27 7	3
5	4 25 39	4 25 38	5 11 56	5 11 55	5 27 39	5 27 38	4
6	4 26 13	4 26 12	5 12 28	5 12 27	5 28 11	5 28 10	5
7	4 26 44	4 26 43	5 12 59	5 12 58	5 28 42	5 28 41	6
8	4 27 15	4 27 14	5 13 30	5 13 29	5 29 13	5 29 12	7
9	4 27 47	4 27 46	5 14 2	5 14 1	5 29 45	5 29 44	8
10	4 28 18	4 28 17	5 14 33	5 14 32	6 0 16	6 0 15	9
11	4 28 50	4 28 49	5 15 5	5 15 4	6 0 48	6 0 47	10
12	4 29 21	4 29 20	5 15 36	5 15 35	6 1 19	6 1 18	11
13	4 29 53	4 29 51	5 16 8	5 16 7	6 1 51	6 1 50	12
14	5 0 24	5 0 23	5 16 39	5 16 38	6 2 22	6 2 21	13
15	5 0 56	5 0 55	5 17 11	5 17 10	6 2 54	6 2 53	14
16	5 1 27	5 1 26	5 17 42	5 17 41	6 3 25	6 3 24	15
17	5 1 59	5 1 58	5 18 14	5 18 13	6 3 57	6 3 56	16
18	5 2 30	5 2 29	5 18 45	5 18 44	6 4 28	6 4 27	17
19	5 3 1	5 3 0	5 19 16	5 19 15	6 4 59	6 4 58	18
20	5 3 33	5 3 32	5 19 48	5 19 47	6 5 31	6 5 30	19
21	5 4 4	5 4 3	5 20 19	5 20 18	6 6 2	6 6 1	20
22	5 4 36	5 4 35	5 20 51	5 20 50	6 6 34	6 6 33	21
23	5 5 8	5 5 7	5 21 22	5 21 21	6 7 5	6 7 4	22
24	5 5 39	5 5 38	5 21 54	5 21 53	6 7 37	6 7 36	23
25	5 6 10	5 6 9	5 22 25	5 22 24	6 8 8	6 8 7	24
26	5 6 42	5 6 41	5 22 57	5 22 56	6 8 40	6 8 39	25
27	5 7 13	5 7 12	5 23 28	5 23 27	6 9 11	6 9 10	26
28	5 7 44	5 7 43	5 23 59	5 23 58	6 9 42	6 9 41	27
29	5 8 16	5 8 15	5 24 31	5 24 30	6 10 14	6 10 13	28
30	5 8 47	5 8 46	5 25 2	5 25 1	6 10 45	6 10 44	29
31	5 9 19	5 9 18	5 25 33	5 25 32	6 11 17	6 11 16	30

A TABLE of MARS's Mean Motion, in Hours, Minutes, and Seconds.

H.	Longit. ♂			Anom. ♂		
′	°	′	″	°	′	″
1	0	1	19	0	1	19
2	0	2	37	0	2	37
3	0	3	56	0	3	56
4	0	5	15	0	5	15
5	0	6	33	0	6	33
6	0	7	52	0	7	52
7	0	9	10	0	9	10
8	0	10	29	0	10	29
9	0	11	48	0	11	48
10	0	13	6	0	13	6
11	0	14	25	0	14	25
12	0	15	43	0	15	43
13	0	17	2	0	17	2
14	0	18	21	0	18	21
15	0	19	39	0	19	39
16	0	20	58	0	20	58
17	0	22	16	0	22	16
18	0	23	35	0	23	35
19	0	24	54	0	24	54
20	0	26	16	0	26	16
21	0	27	31	0	27	31
22	0	28	49	0	28	49
23	0	30	8	0	30	8
24	0	31	27	0	31	27
25	0	32	45	0	32	45
26	0	34	4	0	34	4
27	0	35	22	0	35	22
28	0	36	41	0	36	41
29	0	38	0	0	38	0
30	0	39	18	0	39	18
″	‴	iv	v	‴	iv	v

′	Longit. ♂			Anom. ♂		
″	°	′	″	°	′	″
31	0	40	37	0	40	37
32	0	41	56	0	41	56
33	0	43	15	0	43	15
34	0	44	33	0	44	33
35	0	45	52	0	45	52
36	0	47	11	0	47	11
37	0	48	30	0	48	30
38	0	49	49	0	49	49
39	0	51	6	0	51	6
40	0	52	25	0	52	25
41	0	53	44	0	53	44
42	0	55	2	0	55	2
43	0	56	21	0	56	21
44	0	57	39	0	57	39
45	0	58	58	0	58	58
46	1	0	16	1	0	16
47	1	1	34	1	1	34
48	1	2	53	1	2	53
49	1	4	12	1	4	12
50	1	5	30	1	5	30
51	1	6	49	1	6	49
52	1	8	8	1	8	8
53	1	9	26	1	9	26
54	1	10	45	1	10	45
55	1	12	4	1	12	4
56	1	13	22	1	13	22
57	1	14	40	1	14	40
58	1	15	59	1	15	59
59	1	17	18	1	17	18
60	1	18	30	1	18	30
″	‴	iv	v	‴	iv	v

A TABLE of MARS's Equation.

Degrees.	Sig. 0. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 1. Equa. Sub.	Logar. Dist. à ☉ Curt.	Sig. 2. Equa. Sub.	Logar. Dist. à ☉ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	0 0 0	522136	4 49 27	521709	8 39 52	520488	30
1	0 9 59	522135	4 58 25	521680	8 45 53	520436	29
2	0 19 58	522133	5 7 21	521650	8 51 44	520382	28
3	0 29 56	522130	5 16 11	521620	8 57 28	520328	27
4	0 39 53	522126	5 24 57	521590	9 3 3	520272	26
5	0 49 50	522122	5 33 36	521559	9 8 29	520217	25
6	0 59 46	522117	5 42 11	521526	9 13 46	520161	24
7	1 9 42	522112	5 50 42	521492	9 18 56	520104	23
8	1 19 37	522104	5 59 7	521457	9 23 56	520046	22
9	1 29 32	522095	6 7 29	521422	9 28 49	519998	21
10	1 39 24	522082	6 15 45	521385	9 33 33	519929	20
11	1 49 15	522077	6 23 57	521348	9 38 7	519869	19
12	1 59 5	522065	6 32 2	521310	9 42 31	519803	18
13	2 8 54	522053	6 40 3	521272	9 46 48	51974	17
14	2 18 42	522040	6 47 57	521232	9 50 55	519688	16
15	2 28 27	522027	6 55 45	521192	9 54 53	519624	15
16	2 38 10	522012	7 3 27	521151	9 58 39	519561	14
17	2 47 51	521997	7 11 4	521109	10 2 18	51949	13
18	2 57 29	521980	7 18 34	521065	10 5 46	519435	12
19	3 7 5	521963	7 25 59	521021	10 9 5	519371	11
20	3 16 39	521943	7 33 16	520977	10 12 12	519305	10
21	3 26 10	521924	7 40 26	520932	10 15 10	519240	9
22	3 35 38	521904	7 47 29	520884	10 17 57	519175	8
23	3 45 4	521884	7 54 28	520838	10 20 35	519109	7
24	3 54 25	521861	8 1 19	520791	10 23 2	519042	6
25	4 3 45	521838	8 8 3	520743	10 25 18	518975	5
26	4 13 0	521814	8 14 39	520693	10 27 23	518908	4
27	4 22 14	521789	8 21 10	520643	10 29 21	518841	3
28	4 31 21	521763	8 27 32	520593	10 30 57	518772	2
29	4 40 26	521737	8 33 47	520544	10 32 25	518704	1
30	4 49 27	521709	8 39 52	520488	10 33 57	518636	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of MARS's Equation.

Degrees.	Sig. 3. Equa. Sub. ° ′ ″	Sig. 3. Logar. Dist. ♂ ☉ Curt.	Sig. 4. Equa. Sub. ° ′ ″	Sig. 4. Logar. Dist. ♂ ☉ Curt.	Sig. 5. Equa. Sub. ° ′ ″	Sig. 5. Logar. Dist. ♂ ☉ Curt.	Degrees.
0	10 33 57	518636	9 42 17	516526	5 53 44	514763	30
1	10 35 8	518566	9 38 27	516457	5 43 25	514720	29
2	10 36 7	518497	9 33 23	516399	5 32 58	514676	28
3	10 36 56	518428	9 28 8	516326	5 22 21	514635	27
4	10 37 32	518358	9 22 40	516254	5 11 36	514595	26
5	10 37 59	518289	9 17 1	516187	5 0 43	514556	25
6	10 38 12	518219	9 11 8	516121	4 49 40	514520	24
7	10 38 12	518148	9 5 4	516056	4 38 34	514484	23
8	10 38 1	518078	8 58 47	515992	4 27 10	514449	22
9	10 37 40	518007	8 52 20	515927	4 15 58	514416	21
10	10 37 6	517936	8 45 40	515863	4 4 31	514383	20
11	10 36 20	517865	8 38 50	515800	3 52 56	514352	19
12	10 35 21	517794	8 31 47	515738	3 41 17	514323	18
13	10 34 13	517722	8 24 31	515675	3 29 31	514295	17
14	10 32 50	517652	8 17 5	515613	3 17 40	514269	16
15	10 31 17	517581	8 9 27	515553	3 5 43	514244	15
16	10 29 30	517510	8 1 37	515495	2 53 42	514221	14
17	10 27 33	517438	7 53 35	515436	2 41 36	514200	13
18	10 25 22	517368	7 45 25	515378	2 29 27	514180	12
19	10 23 0	517297	7 37 3	515321	2 17 14	514162	11
20	10 20 25	517225	7 28 39	515266	2 4 58	514146	10
21	10 17 39	517153	7 19 46	515210	1 52 7	514141	9
22	10 14 39	517083	7 10 52	515156	1 40 4	514117	8
23	10 11 27	517012	7 1 49	515103	1 27 7	514105	7
24	10 8 3	516942	6 52 34	515052	1 15 19	514094	6
25	10 4 27	516872	6 43 11	515001	1 2 48	514085	5
26	10 0 37	516803	6 32 36	514951	0 50 17	514076	4
27	9 56 36	516733	6 23 52	514902	0 37 43	514073	3
28	9 52 22	516664	6 13 51	514855	0 25 10	514070	2
29	9 47 56	516595	6 3 55	514809	0 12 35	514068	1
30	9 43 17	516526	5 53 44	514763	0 0 0	514067	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of MARS's Inclination from the Plan of the Ecliptic, with the Proportional Scruples of Latitude.

Argument of Latitude.

Degrees.	Sig. 0. *North Asc.* Sig. 6. *South Asc.*				Sig. 1. *North Asc.* Sig. 7. *South Asc.*				Sig. 2. *North Asc.* Sig. 8. *South Asc.*				Degrees.
	Inclinat.		P. Scr.		Inclinat.		P. Scr.		Inclinat.		P Scr.		
	°	′ ″	′	″	°	′ ″	′	″	°	′ ″	′	″	
0	0	0 0	0	0	0	55 32	30	0	1	36 11	51	57	30
1	0	1 56	1	3	0	57 11	30	54	1	37 8	52	28	29
2	0	3 52	2	5	0	58 50	31	48	1	38 3	52	58	28
3	0	5 48	3	8	1	0 27	32	41	1	38 58	23	27	27
4	0	7 44	4	11	1	2 4	33	33	1	39 50	53	56	26
5	0	9 40	5	14	1	3 40	34	25	1	40 40	54	23	25
6	0	11 36	6	17	1	5 15	35	16	1	41 29	54	49	24
7	0	13 32	7	19	1	6 48	36	6	1	42 15	55	14	23
8	0	15 27	8	21	1	8 21	36	56	1	42 59	55	38	22
9	0	17 22	9	23	1	9 52	37	45	1	43 42	56	1	21
10	0	19 17	10	25	1	11 23	38	34	1	44 22	56	23	20
11	0	21 12	11	27	1	12 52	39	22	1	45 0	56	44	19
12	0	23 6	12	29	1	14 20	40	9	1	45 37	57	4	18
13	0	24 59	13	30	1	15 46	40	55	1	46 13	57	23	17
14	0	26 52	14	31	1	17 10	41	40	1	46 46	57	40	16
15	0	28 45	15	32	1	18 34	42	26	1	47 17	57	57	15
16	0	30 36	16	32	1	19 55	43	10	1	47 46	58	13	14
17	0	32 28	17	32	1	21 14	43	53	1	48 13	58	28	13
18	0	34 19	18	32	1	22 32	44	35	1	48 29	58	42	12
19	0	36 10	19	32	1	23 50	45	16	1	49 2	58	54	11
20	0	37 59	20	31	1	25 5	45	57	1	49 23	59	5	10
21	0	39 48	21	30	1	26 19	46	37	1	49 42	59	16	9
22	0	41 36	22	29	1	27 31	47	16	1	49 59	59	25	8
23	0	43 23	23	27	1	28 42	47	54	1	50 14	59	33	7
24	0	45 10	24	24	1	29 51	48	32	1	50 27	59	40	6
25	0	46 55	25	21	1	30 59	49	9	1	50 38	59	46	5
26	0	48 40	26	18	1	32 4	49	44	1	50 47	59	52	4
27	0	50 25	27	14	1	33 8	50	18	1	50 54	59	56	3
28	0	52 8	28	10	1	34 11	50	52	1	50 59	59	58	2
29	0	53 50	29	5	1	35 11	51	25	1	51 2	59	59	1
30	0	55 32	30	0	1	36 11	51	57	1	51 4	60	0	0
	Sig. 11. *South Desc.* Sig. 5. *North Desc.*				Sig. 10. *South Desc.* Sig. 4. *North Desc.*				Sig. 9. *South Desc.* Sig. 3. *North Desc.*				

Argument of Latitude.

A TABLE of VENUS's Mean Motion.

Epocha or Radices.

Anni Christ	Longit ♀ S	°	'	Anom. ♀ S	°	'	Node ♀ S	°	'
1	1	13	23	4	23	37	1	26	55
101	8	2	35	11	10	22	1	27	56
201	2	21	48	5	27	8	1	28	58
301	9	11	0	0	13	53	1	29	59
401	4	6	13	7	0	39	2	1	1
501	10	19	25	1	17	24	2	2	2
601	5	8	37	8	4	8	2	3	4
701	11	27	50	2	20	54	2	4	5
801	6	17	2	9	7	39	2	5	7
901	1	6	15	3	24	25	2	6	8
1001	7	25	27	10	11	10	2	7	10
1101	2	14	39	4	27	55	2	8	11
1201	9	3	52	11	14	41	2	9	13
1301	3	23	4	6	1	26	2	10	14
1401	10	12	17	0	18	12	2	11	16
1501	5	1	29	7	4	57	2	12	17
1601	11	20	42	1	21	42	2	13	19
1701	6	9	54	8	8	28	2	14	20
1801	0	29	6	2	35	13	2	15	21
1901	7	18	19	9	11	58	2	16	23
2001	2	7	31	3	28	44	2	17	25

Venus's *Mean Motion exceeding* 20 *Years.*

20	6	3	50	6	3	21	0	0	12
40	0	7	41	0	6	42	0	0	25
60	6	11	31	6	10	3	0	0	37
80	0	15	22	0	13	24	0	0	49
100	6	19	12	6	16	45	0	1	1
1000	6	12	4	5	17	33	0	10	15

Mean Motion to 20 Years.

	Years. to 20	Longit. ♀ S	°	'	Anom. ♀ S	°	'	Node ♀ S	°	'
	1	7	14	47	7	14	46	0	0	1
	2	2	29	35	2	29	32	0	0	1
	3	10	14	22	10	14	18	0	0	2
	4	6	0	46	6	0	40	0	0	2
	5	1	15	34	1	15	27	0	0	3
	6	9	0	21	9	0	12	0	0	4
	7	4	15	09	4	14	59	0	0	4
B	8	0	1	32	0	1	20	0	0	5
	9	7	16	20	7	16	7	0	0	6
	10	3	1	7	3	0	42	0	0	6
	11	10	15	55	10	15	39	0	0	7
B	12	6	2	18	6	2	0	0	0	7
	13	1	17	6	1	16	47	0	0	8
	14	9	1	53	9	1	32	0	0	9
	15	4	16	41	4	16	19	0	0	9
B	16	0	3	4	0	2	40	0	0	10
	17	7	17	52	7	17	27	0	0	10
	18	3	2	39	3	2	13	0	0	11
	19	10	17	27	10	16	59	0	0	12
B	20	6	3	50	6	3	21	0	0	12

Years from 1690.

1690	7	22	24	9	21	13	2	14	14
1691	3	7	11	5	5	59	2	14	15
B1692	10	21	59	0	20	45	2	14	15
1693	6	8	22	8	7	7	2	14	16
1694	1	23	10	3	21	53	2	14	16
1695	9	7	58	11	6	40	2	14	17
B1696	4	22	45	6	21	25	2	14	18
1697	0	9	9	2	7	48	2	14	18
1698	7	23	56	9	22	33	2	14	19

A TABLE of VENUS's Mean Motion.

Years.	Longit ♀			Anom. ♀			Node ♀		
	S	o	'	S	o	'	S	o	'
1699	3	8	44	5	7	20	2	14	19
B1700	10	23	31	0	21	55	2	14	20
1701	6	9	54	8	8	28	2	14	20
1702	1	24	42	3	23	13	2	14	21
1703	9	9	30	11	8	0	2	14	22
B1704	4	24	17	6	22	45	2	14	23
1705	0	10	41	2	9	8	2	14	23
1706	7	25	28	9	23	53	2	14	24
1707	3	10	16	5	8	40	2	14	24
B1708	10	25	3	0	23	26	2	14	25
1709	6	11	27	8	9	48	2	14	26
1710	1	26	14	3	24	34	2	14	26
1711	9	11	1	11	9	20	2	14	27
B1712	4	25	49	6	24	6	2	14	27
1713	0	12	12	2	10	28	2	14	28
1714	7	27	0	9	25	14	2	14	28
1715	3	11	48	5	10	1	2	14	29
B1716	10	26	35	0	24	46	2	14	30
1717	6	12	59	8	10	9	2	14	30
1718	1	27	46	3	25	54	2	14	31
1719	9	12	34	11	10	41	2	14	32
B1720	4	27	21	6	25	16	2	14	32
1721	0	13	45	2	11	49	2	14	33
1722	7	28	32	9	26	34	2	14	33
1723	3	13	20	5	11	21	2	14	34
B1724	10	28	7	0	26	6	2	14	35
1725	6	14	31	8	12	29	2	14	35
1726	1	29	18	3	27	14	2	14	36
1727	9	14	6	11	12	1	2	14	36
B1728	4	28	53	6	26	47	2	14	37

Years.	Longit. ♀			Anom. ♀			Node ♀		
	S	o	'	S	o	'	S	o	'
1729	0	15	17	2	13	9	2	14	38
1730	8	0	4	9	27	55	2	14	38
1731	3	14	51	5	12	41	2	14	39
B1732	10	29	39	0	27	27	2	14	39
1733	6	16	2	8	13	49	2	14	40
1734	2	0	50	3	28	35	2	14	40
1735	9	15	38	11	13	22	2	14	41
B1736	5	0	25	6	28	7	2	14	42
1737	0	16	49	2	14	30	2	14	42
1738	8	1	36	9	29	15	2	14	43
1739	3	16	44	5	14	2	2	14	44
B1740	11	1	11	0	28	37	2	14	44
1741	6	17	35	8	15	10	2	14	45
1742	2	2	22	3	29	55	2	14	45
1743	9	17	10	11	14	42	2	14	46
B1744	4	1	57	6	29	27	2	14	47
1745	0	18	21	2	15	50	2	14	47
1746	8	3	8	10	0	35	2	14	48
1747	3	17	56	5	15	22	2	14	48
B1748	11	2	23	1	0	8	2	14	49
1749	6	19	7	8	16	30	2	14	50
1750	2	3	54	4	1	16	2	14	50
1751	9	18	41	11	16	2	2	14	51
B1752	5	3	29	7	0	48	2	14	51
1753	0	19	52	2	17	10	2	14	52
1754	8	4	40	10	1	56	2	14	52
1755	3	19	28	5	16	43	2	14	53
B1756	11	4	15	1	1	28	2	14	54
1757	6	20	9	8	17	51	2	14	54
1758	2	5	26	4	2	36	2	14	55

A TABLE of VENUS's Mean Motion.

Years.	Longit. ♀ S	o	'	Anom. ♀ S	o	'	Node ♀ S	o	'
1759	9	20	14	11	17	23	2	14	56
B1760	5	5	1	7	1	48	2	14	56
1761	0	21	25	2	18	31	2	14	57
1762	8	6	12	10	3	16	2	14	57
1763	3	21	0	5	18	3	2	14	58
B1764	11	5	47	1	2	48	2	14	59
1765	6	21	31	8	19	11	2	14	59
1766	2	6	58	4	3	56	2	15	0
1767	9	21	46	11	18	43	2	15	0
B1768	5	6	33	7	3	29	2	15	1
1769	0	22	57	2	19	51	2	15	2
1770	8	7	44	10	4	37	2	15	2
1771	3	22	31	5	19	23	2	15	3
B1772	11	7	19	1	4	9	2	15	3
1773	6	23	42	8	20	31	2	15	4
1774	2	8	30	4	5	17	2	15	4
1775	9	23	18	11	20	4	2	15	5
B1776	5	8	5	7	4	49	2	15	6
1777	0	24	29	2	21	12	2	15	6
1778	8	9	16	10	5	57	2	15	7
1779	3	24	4	5	20	44	2	15	8
B1780	11	8	51	1	5	19	2	15	8
1781	6	25	15	8	21	52	2	15	9
1782	2	10	2	4	6	37	2	15	9
1783	9	24	50	11	21	24	2	15	10
B1784	5	9	37	7	6	9	2	15	11
1785	0	26	1	2	22	32	2	15	11
1786	8	10	48	10	7	17	2	15	12
1787	3	25	36	5	22	4	2	15	12
B1788	11	10	23	1	6	50	2	15	13
1789	6	26	47	8	23	12	2	15	14
1790	2	11	34	4	7	58	2	15	14
1791	9	26	22	11	22	44	2	15	15
B1792	5	11	10	7	7	30	2	15	15
1793	0	27	33	2	23	52	2	15	16
1794	8	12	21	10	8	38	2	15	16
1795	3	27	9	5	23	25	2	15	17
B1796	11	11	56	1	8	10	2	15	18
1797	6	28	20	8	24	33	2	15	18
1798	2	13	7	4	9	18	2	15	19
1799	9	27	55	11	24	5	2	15	20
B1800	5	12	42	7	8	40	2	15	20
1801	0	29	6	2	25	13	2	15	21
1802	8	13	53	10	9	58	2	15	21
1803	3	29	40	5	24	45	2	15	22
B1804	11	13	27	1	9	30	2	15	23
1805	6	29	51	8	25	53	2	15	23
1806	2	14	38	4	10	38	2	15	24
1807	9	29	26	11	25	25	2	15	24
B1808	5	14	13	7	10	11	2	15	25
1809	1	0	37	2	26	33	2	15	26
1810	8	15	24	10	11	19	2	15	26
1811	4	0	11	5	26	5	2	15	27
B1812	11	14	59	1	10	51	2	15	27
1813	7	1	22	8	27	13	2	15	28
1814	2	16	10	4	11	59	2	15	28
1815	10	0	58	11	26	46	2	15	29
B1816	5	15	45	7	11	31	2	15	30
1817	1	2	9	2	27	54	2	15	30
1818	8	16	56	10	12	39	2	15	31

A TABLE of VENUS's Mean Motion.

Com. Years	JANUARY. Longit. ♀			JANUARY. Anom. ♀			FEBRUARY. Longit. ♀			FEBRUARY. Anom. ♀			MARCH. Longit. ♀			MARCH. Anom. ♀			Biſſextile.
	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	
1	0	1	36	0	1	36	1	21	16	1	21	16	3	6	8	3	6	8	0
2	0	3	12	0	3	12	1	22	52	1	22	52	3	7	44	3	7	44	1
3	0	4	48	0	4	48	1	24	28	1	24	28	3	9	20	3	9	20	2
4	0	6	25	0	6	25	1	26	5	1	26	5	3	10	57	3	10	57	3
5	0	8	1	0	8	1	1	27	41	1	27	41	3	12	33	3	12	33	4
6	0	9	37	0	9	37	1	29	17	1	29	17	3	14	9	3	14	9	5
7	0	11	13	0	11	13	2	0	53	2	0	53	3	15	45	3	15	45	6
8	0	12	49	0	12	49	2	2	29	2	2	29	3	17	21	3	17	21	7
9	0	14	25	0	14	25	2	4	5	2	4	5	3	18	57	3	18	57	8
10	0	16	1	0	16	1	2	5	41	2	5	41	3	20	33	3	20	33	9
11	0	17	37	0	17	37	2	7	17	2	7	17	3	22	9	3	22	9	10
12	0	19	14	0	19	14	2	8	54	2	8	54	3	23	46	3	23	46	11
13	0	20	50	0	20	50	2	10	30	2	10	30	3	25	22	3	25	22	12
14	0	22	26	0	22	26	2	12	6	2	12	6	3	26	58	3	26	58	13
15	0	24	2	0	24	2	2	13	42	2	13	42	3	28	34	3	28	34	14
16	0	25	38	0	25	38	2	15	18	2	15	18	4	0	15	4	0	15	15
17	0	27	14	0	27	14	2	16	54	2	16	54	4	1	46	4	1	46	16
18	0	28	50	0	28	50	2	18	30	2	18	30	4	3	22	4	3	22	17
19	1	0	26	1	0	26	2	20	6	2	20	6	4	4	58	4	4	58	18
20	1	2	3	1	2	3	2	21	43	2	21	43	4	6	35	4	6	35	19
21	1	3	39	1	3	39	2	23	19	2	23	19	4	8	11	4	8	11	20
22	1	5	15	1	5	15	2	24	55	2	24	55	4	9	47	4	9	47	21
23	1	6	51	1	6	51	2	26	31	2	26	31	4	11	23	4	11	23	22
24	1	8	27	1	8	27	2	28	7	2	28	7	4	12	59	4	12	59	23
25	1	10	3	1	10	3	2	29	43	2	29	43	4	14	35	4	14	35	24
26	1	11	39	1	11	39	3	1	19	3	1	19	4	16	11	4	16	11	25
27	1	13	16	1	13	16	3	2	56	3	2	56	4	17	48	4	17	48	26
28	1	14	52	1	14	52	3	4	32	3	4	32	4	19	24	4	19	24	27
29	1	16	28	1	16	28	3	6	8	3	6	8	4	21	0	4	21	0	28
30	1	18	4	1	18	4	0	0	0	0	0	0	4	22	36	4	22	36	29
31	1	19	40	1	19	40	0	0	0	0	0	0	4	24	12	4	24	12	30

A TABLE of VENUS's Mean Motion.

Com. Years	APRIL. Longit. ♀	APRIL. Anom. ♀	MAY. Longit. ♀	MAY. Anom. ♀	JUNE. Longit. ♀	JUNE. Longit. ♀	Bissextile.
	S o '	S o '	S o '	S o '	S o '	S o '	
1	4 25 48	4 25 48	6 13 52	6 13 52	8 3 32	8 3 32	0
2	4 27 24	4 27 24	6 15 28	6 15 28	8 5 8	8 5 8	1
3	4 29 0	4 29 0	6 17 4	6 17 4	8 6 44	8 6 44	2
4	5 0 37	5 0 37	6 18 41	6 18 41	8 8 21	8 8 21	3
5	5 2 13	5 2 13	6 20 17	6 20 17	8 9 57	8 9 57	4
6	5 3 49	5 3 49	6 21 53	6 21 53	8 11 33	8 11 33	5
7	5 5 25	5 5 25	6 23 29	6 23 29	8 13 9	8 13 9	6
8	5 7 1	5 7 1	6 25 5	6 25 5	8 14 45	8 14 45	7
9	5 8 37	5 8 37	6 26 41	6 26 41	8 16 21	8 16 21	8
10	5 10 13	5 10 13	6 28 17	6 28 17	8 17 57	8 17 57	9
11	5 11 49	5 11 49	6 29 53	6 29 53	8 19 33	8 19 33	10
12	5 13 26	5 13 26	7 1 30	7 1 30	8 21 10	8 21 10	11
13	5 15 2	5 15 2	7 3 6	7 3 6	8 22 46	8 22 46	12
14	5 16 28	5 16 28	7 4 42	7 4 42	8 24 22	8 24 22	13
15	5 18 14	5 18 14	7 6 18	7 6 18	8 25 58	8 25 58	14
16	5 19 50	5 19 50	7 7 54	7 7 54	8 27 34	8 27 34	15
17	5 21 26	5 21 26	7 9 30	7 9 30	8 29 10	8 29 10	16
18	5 23 2	5 23 2	7 11 6	7 11 6	9 0 46	9 0 46	17
19	5 24 38	5 24 38	7 12 42	7 12 42	9 2 22	9 2 22	18
20	5 26 15	5 26 15	7 14 19	7 14 19	9 3 59	9 3 59	19
21	5 27 51	5 27 51	7 15 55	7 15 55	9 5 35	9 5 35	20
22	5 29 27	5 29 27	7 17 31	7 17 31	9 7 11	9 7 11	21
23	6 1 3	6 1 3	7 19 7	7 19 7	9 8 47	9 8 47	22
24	6 2 39	6 2 39	7 20 43	7 20 43	9 10 23	9 10 23	23
25	6 4 15	6 4 15	7 22 19	7 22 19	9 11 59	9 11 59	24
26	6 5 51	6 5 51	7 23 55	7 23 55	9 13 35	9 13 35	25
27	6 7 28	6 7 28	7 25 32	7 25 32	9 15 12	9 15 12	26
28	6 9 4	6 9 4	7 27 8	7 27 8	9 16 48	9 16 48	27
29	6 10 40	6 10 40	7 28 44	7 28 44	9 18 24	9 18 24	28
30	6 12 16	6 12 16	8 0 20	8 0 20	9 20 0	9 19 59	29
31	6 13 52	6 13 52	8 1 56	4 1 56	9 21 36	9 21 35	30

A TABLE of VENUS's Mean Motion.

Com. Years	AUGUST. Longit. ♀	AUGUST. Anom. ♀	JULY. Longit. ♀	JULY. Anom. ♀	SEPTEMBER. Longit. ♀	SEPTEMBER. Anom. ♀	Bissextile.
	S o '	S o '	S o '	S o '	S o '	S o '	
1	9 21 36	9 21 35	11 11 16	11 11 15	1 0 56	1 0 55	0
2	9 23 12	9 23 11	11 12 52	11 12 51	1 2 32	1 2 31	1
3	9 24 48	9 24 47	11 14 28	11 14 27	1 4 8	1 4 7	2
4	9 26 25	9 26 24	11 16 5	11 16 4	1 5 45	1 5 44	3
5	9 28 1	9 28 0	11 17 41	11 17 40	1 7 21	1 7 20	4
6	9 29 37	9 29 36	11 19 17	11 19 16	1 8 57	1 8 56	5
7	10 1 13	10 1 12	11 20 53	11 20 52	1 10 33	1 10 32	6
8	10 2 49	10 2 48	11 22 29	11 22 28	1 12 9	1 12 8	7
9	10 4 25	10 4 24	11 24 5	11 24 4	1 13 45	1 13 44	8
10	10 6 1	10 6 0	11 25 41	11 25 40	1 15 21	1 15 20	9
11	10 7 37	10 7 36	11 27 17	11 27 16	1 16 57	1 16 56	10
12	10 9 14	10 9 13	11 28 54	11 28 53	1 18 34	1 18 33	11
13	10 10 50	10 10 49	0 0 30	0 0 29	1 20 10	1 20 9	12
14	10 12 26	10 12 25	0 2 6	0 2 5	1 21 46	1 21 45	13
15	10 14 2	10 14 1	0 3 42	0 3 41	1 23 22	1 23 21	14
16	10 15 38	10 15 37	0 5 18	0 5 17	1 24 58	1 24 57	15
17	10 17 14	10 17 13	0 6 54	0 6 53	1 26 34	1 26 33	16
18	10 18 50	10 18 49	0 8 30	0 8 29	1 28 10	1 28 9	17
19	10 20 26	10 20 25	0 10 6	0 10 5	1 29 46	1 29 45	18
20	10 22 3	10 22 2	0 11 43	0 11 42	2 1 23	2 1 22	19
21	10 23 39	10 23 38	0 13 19	0 13 18	2 2 59	2 2 58	20
22	10 25 15	10 25 14	0 14 55	0 14 54	2 4 35	2 4 34	21
23	10 26 51	10 26 50	0 16 31	0 16 30	2 6 11	2 6 10	22
24	10 28 27	10 28 26	0 18 7	0 18 6	2 7 47	2 7 46	23
25	11 0 3	11 0 2	0 19 43	0 19 42	2 9 23	2 9 22	24
26	11 1 39	11 1 38	0 21 19	0 21 18	2 11 59	2 11 58	25
27	11 3 16	11 3 15	0 22 56	0 22 55	2 12 36	2 12 35	26
28	11 4 52	11 4 51	0 24 32	0 24 31	2 14 12	2 14 11	27
29	11 6 28	11 6 27	0 26 8	0 26 7	2 15 48	2 15 47	28
30	11 8 4	11 8 3	0 27 44	0 27 43	2 17 24	2 17 23	29
31	11 9 40	11 9 39	0 29 20	0 29 19	2 19 0	2 18 59	30

For Longit. *in the last Page under* JUNE *2d. Col. read Anom.*

A TABLE of VENUS's Mean Motion.

Com. Years	OCTOBER. Longit. ♀			OCTOBER. Anom. ♀			NOVEMB. Longit. ♀			NOVEMB. Anom. ♀			DECEMB. Longit. ♀			DECEMB. Anom. ♀			Degrees.
	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	
1	2	19	0	2	18	59	4	8	40	4	8	39	5	26	44	5	26	43	0
2	2	20	36	2	20	35	4	10	16	4	10	15	5	28	20	5	28	19	1
3	2	22	12	2	22	11	4	11	52	4	11	51	5	29	56	5	29	55	2
4	2	23	49	2	23	48	4	13	29	4	13	28	6	1	33	6	1	32	3
5	2	25	25	2	25	24	4	15	5	4	15	4	6	3	9	6	3	8	4
6	2	27	1	2	27	0	4	16	41	4	16	40	6	4	45	6	4	44	5
7	2	28	37	2	28	36	4	18	57	4	18	56	6	6	21	6	6	20	6
8	3	0	13	3	0	12	4	19	53	4	19	52	6	7	57	6	7	56	7
9	3	1	49	3	1	48	4	21	29	4	21	28	6	9	33	6	9	32	8
10	3	3	25	3	3	24	4	23	5	4	23	4	6	11	9	6	11	8	9
11	3	5	1	3	5	0	4	24	41	4	24	40	6	12	45	6	12	44	10
12	3	6	38	3	6	37	4	26	18	4	26	17	6	14	22	6	14	21	11
13	3	8	14	3	8	13	4	27	54	4	27	53	6	15	58	6	15	51	12
14	3	9	50	3	9	49	4	29	30	4	29	29	6	17	34	6	17	33	13
15	3	11	26	3	11	25	5	1	6	5	1	5	6	19	10	6	19	9	14
16	3	13	2	3	13	1	5	2	42	5	2	41	6	20	46	6	20	45	15
17	3	14	38	3	14	37	5	4	18	5	4	17	6	22	22	6	22	21	16
18	3	16	14	3	16	13	5	5	54	5	5	53	6	23	58	6	23	57	17
19	3	17	50	3	17	49	5	7	30	5	7	29	6	25	34	6	25	33	18
20	3	19	27	3	19	26	5	9	7	5	9	6	6	27	11	6	27	10	19
21	3	21	3	3	21	2	5	10	43	5	10	42	6	28	47	6	28	46	20
22	3	22	39	3	22	38	5	12	19	5	12	18	7	0	23	7	0	22	21
23	3	24	15	3	24	14	5	13	55	5	13	54	7	1	59	7	1	58	22
24	3	25	51	3	25	50	5	15	31	5	15	30	7	3	35	7	3	34	23
25	3	27	27	3	27	26	5	17	7	5	17	6	7	5	11	7	5	10	24
26	3	29	3	3	29	2	5	18	43	5	18	42	7	6	47	7	6	45	25
27	4	0	40	4	0	39	5	20	20	5	20	19	7	8	24	7	8	22	26
28	4	2	16	4	2	15	5	21	56	5	21	55	7	10	0	7	9	58	27
29	4	3	52	4	3	51	5	23	32	5	23	31	7	11	36	7	11	34	28
30	4	5	28	4	5	27	5	25	8	5	25	7	7	13	12	7	13	10	29
31	4	7	4	4	7	3	5	26	44	5	26	43	7	14	48	7	14	46	30

A TABLE of VENUS's Mean Motion, in Hours, Minutes, and Seconds.

H.	Longit. ♀			Anom. ♀			′	Longit. ♀			Anom. ♀		
′	°	′	″	°	′	″	″	°	′	″	°	′	″
1	0	4	0	0	4	0	31	2	4	10	2	4	10
2	0	8	1	0	8	1	32	2	8	11	2	8	11
3	0	12	1	0	12	1	33	2	12	11	2	12	11
4	0	16	1	0	16	1	34	2	16	11	2	16	11
5	0	20	2	0	20	2	35	2	20	12	2	20	12
6	0	24	2	0	24	2	36	2	24	12	2	24	12
7	0	28	2	0	28	2	37	2	28	12	2	28	12
8	0	32	2	0	32	2	38	2	32	13	2	32	13
9	0	36	3	0	36	3	39	2	36	13	2	36	13
10	0	40	3	0	40	3	40	2	40	13	2	40	13
11	0	44	3	0	44	3	41	2	44	14	2	44	14
12	0	48	4	0	48	4	42	2	48	14	2	48	14
13	0	52	4	0	52	4	43	2	52	14	2	52	14
14	0	56	4	0	56	4	44	3	56	15	2	56	15
15	1	0	5	1	0	5	45	3	0	15	3	0	15
16	1	4	5	1	4	5	46	3	4	15	3	4	15
17	1	8	5	1	8	5	47	3	8	16	3	8	16
18	1	12	5	1	12	5	48	3	12	16	3	12	16
19	1	16	6	1	16	6	49	3	16	16	3	16	16
20	1	20	6	1	20	6	50	3	20	17	3	20	17
21	1	24	6	1	24	6	51	3	24	17	3	24	17
22	1	28	7	1	28	7	52	3	28	17	3	28	17
23	1	32	7	1	32	7	53	3	32	18	3	32	18
24	1	36	7	1	36	7	54	3	36	18	3	36	18
25	1	40	8	1	40	8	55	3	40	18	3	40	18
26	1	44	8	1	44	8	56	3	44	19	3	44	19
27	1	48	9	1	48	9	57	3	48	19	3	48	19
28	1	52	9	1	52	9	58	3	52	19	3	52	19
29	1	56	9	1	56	9	59	3	56	20	3	56	20
30	2	0	10	2	0	10	60	4	0	20	4	0	20
″	‴	iv	v	‴	iv	v	‴	‴	iv	v	‴	iv	v

A TABLE of VENUS's Æquation.

Degrees.	Sig. 0. Equa. Sub. ° ′ ″	Sig. 0. Logar. Dist. ♀ ⊙ Curt.	Sig. 1. Equa. Sub. ° ′ ″	Sig. 1. Logar. Dist. ♀ ⊙ Curt.	Sig. 2. Equa. Sub. ° ′ ″	Sig. 2. Logar. Dist. ♀ ⊙ Curt.	Degrees.
0	0 0 0	486293	0 20 24	486227	0 35 4	486088	30
1	0 0 42	486293	0 21 0	486222	0 35 26	486082	29
2	0 1 25	486292	0 21 36	486219	0 35 48	486077	28
3	0 2 8	486290	0 22 12	486215	0 36 8	486071	27
4	0 2 50	486289	0 22 47	486211	0 36 29	486065	26
5	0 3 33	486287	0 23 22	486207	0 36 48	486059	25
6	0 4 15	486286	0 23 56	486204	0 37 6	486054	24
7	0 4 58	486285	0 24 30	486200	0 37 23	486048	23
8	0 5 41	486283	0 25 4	486196	0 37 38	486042	22
9	0 6 24	486281	0 25 38	486192	0 37 54	486036	21
10	0 7 6	486279	0 26 11	486187	0 38 8	486031	20
11	0 7 48	486277	0 26 43	486183	0 38 23	486023	19
12	0 8 31	486276	0 27 14	486179	0 38 36	486018	18
13	0 9 13	486274	0 27 45	486175	0 38 48	486012	17
14	0 9 54	486272	0 28 16	486170	0 38 58	486006	16
15	0 10 36	486270	0 28 47	486165	0 39 7	485999	15
16	0 11 17	486268	0 29 18	486160	0 39 17	485992	14
17	0 11 59	486265	0 29 48	486156	0 39 25	485986	13
18	0 12 41	486264	0 30 17	486152	0 39 33	485980	12
19	0 13 21	486261	0 30 44	486147	0 39 42	485974	11
20	0 14 1	486258	0 31 10	486142	0 39 50	485967	10
21	0 14 41	486255	0 31 35	486136	0 39 58	485961	9
22	0 15 21	486252	0 32 0	486131	0 40 5	485955	8
23	0 16 0	486249	0 32 25	486126	0 40 12	485948	7
24	0 16 39	486247	0 32 49	486121	0 40 18	485943	6
25	0 17 18	486244	0 33 12	486116	0 40 22	485936	5
26	0 17 56	486241	0 33 35	486110	0 40 25	485930	4
27	0 18 34	486237	0 33 58	486105	0 40 27	485924	3
28	0 19 11	486234	0 34 20	486099	0 40 28	485917	2
29	0 19 48	486230	0 34 42	486093	0 40 29	485911	1
30	0 20 24	486227	0 35 4	486088	0 40 30	485905	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of VENUS's ♀ Æquation.

Degrees.	Sig. 3. Equa. Sub.	Sig. 3. Logar. Dist. ♀ ☉ Curt.	Sig. 4. Equa. Sub.	Sig. 4. Logar. Dist. ♀ ☉ Curt.	Sig. 5. Equa. Sub.	Sig. 5. Logar. Dist. ♀ ☉ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	0 40 30	485905	0 34 18	485770	0 20 38	485677	30
1	0 40 30	485900	0 34 56	485767	0 20 1	485675	29
2	0 40 30	485896	0 34 34	485763	0 19 24	485674	28
3	0 40 29	485892	0 34 12	485759	0 18 46	485672	27
4	0 40 28	485887	0 33 49	485755	0 18 8	485671	26
5	0 40 25	485882	0 33 26	485751	0 17 29	485669	25
6	0 40 21	485876	0 33 3	485747	0 16 50	485667	24
7	0 40 16	485872	0 32 39	485744	0 16 10	485665	23
8	0 40 10	485868	0 32 14	485741	0 15 30	485664	22
9	0 40 3	485863	0 31 49	485737	0 14 50	485663	21
10	0 39 56	485858	0 31 24	485734	0 14 10	485662	20
11	0 39 48	485854	0 30 58	485730	0 13 29	485661	19
12	0 39 40	485848	0 30 31	485726	0 12 48	485660	18
13	0 39 32	485844	0 30 2	485723	0 12 6	485659	17
14	0 39 24	485839	0 29 32	485720	0 11 24	485659	16
15	0 39 15	485835	0 29 1	485717	0 10 42	485659	15
16	0 39 6	485831	0 28 30	485714	0 10 0	485658	14
17	0 38 56	485827	0 27 59	485711	0 9 18	485658	13
18	0 38 45	485822	0 27 28	485707	0 8 36	485658	12
19	0 38 32	485817	0 26 57	485704	0 7 53	485657	11
20	0 38 18	485813	0 26 25	485701	0 7 10	485657	10
21	0 38 4	485809	0 25 52	485699	0 6 27	485657	9
22	0 37 49	485805	0 25 18	485696	0 5 44	485656	8
23	0 37 34	485801	0 24 44	485693	0 5 1	485656	7
24	0 37 18	485796	0 24 10	485690	0 4 18	485656	6
25	0 37 0	485792	0 23 36	485688	0 3 35	485656	5
26	0 36 41	485787	0 23 1	485686	0 2 52	485655	4
27	0 36 21	485783	0 22 26	485684	0 2 9	485655	3
28	0 36 1	485779	0 21 50	485682	0 1 26	485655	2
29	0 35 40	485775	0 21 14	485680	0 0 43	485655	1
30	0 35 18	485770	0 20 38	485677	0 0 0	485655	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of VENUS's Inclination from the Plan of the Ecliptic, with the Proportional Scruples of Latitude.

Argument of Latitude.

Degrees.	Sig. 0. *North Asc.* Sig. 6. *South Asc.* Inclinat. ° ′ ″	P. Scr. ′ ″	Sig. 1. *North Asc.* Sig. 7. *South Asc.* Inclinat. ° ′ ″	P. Scr. ′ ″	Sig. 2. *North Asc.* Sig. 8. *South Asc.* Inclinat. ° ′ ″	I. Scr ′ ″	Degrees.
0	0 0 0	0 0	1 41 22	30 0	2 55 38	51 57	30
1	0 3 32	1 3	1 44 26	30 54	2 57 23	52 28	29
2	0 7 4	2 5	1 47 27	31 48	2 59 5	52 58	28
3	0 10 36	3 8	1 50 25	32 41	3 0 43	53 27	27
4	0 14 9	4 11	1 53 22	33 33	3 2 17	53 56	26
5	0 17 40	5 14	1 56 18	34 25	3 3 48	54 23	25
6	0 21 11	6 17	1 59 13	35 16	3 5 15	54 49	24
7	0 24 41	7 19	2 2 3	36 6	3 6 38	55 14	23
8	0 28 11	8 21	2 4 52	36 56	3 8 1	55 38	22
9	0 31 41	9 23	2 7 37	37 45	3 9 19	56 1	21
10	0 35 11	10 25	2 10 21	38 34	3 10 34	56 23	20
11	0 38 40	11 27	2 13 2	39 22	3 11 45	56 44	19
12	0 42 9	12 29	2 15 41	40 9	3 12 54	57 4	18
13	0 45 37	13 30	2 18 18	40 55	3 13 57	57 27	17
14	0 49 4	14 31	2 20 25	41 40	3 14 56	57 40	16
15	0 52 28	15 32	2 23 23	42 26	3 15 54	57 57	15
16	0 55 52	16 32	2 25 51	43 10	3 16 47	58 13	14
17	0 59 15	17 32	2 28 18	43 53	3 17 37	58 28	13
18	1 2 37	18 32	2 30 41	44 35	3 18 24	58 42	12
19	1 5 59	19 32	2 33 2	45 16	3 19 6	58 54	11
20	1 9 20	20 31	2 35 20	45 57	3 19 45	59 5	10
21	1 12 40	21 30	2 37 36	46 37	3 20 20	59 16	9
22	1 15 59	22 29	2 39 48	47 16	3 20 52	59 25	8
23	1 19 14	23 27	2 41 37	47 54	3 21 20	59 33	7
24	1 22 28	24 24	2 44 3	48 32	3 21 44	59 40	6
25	1 25 41	25 21	2 46 7	49 9	3 22 4	59 46	5
26	1 28 51	26 18	2 48 7	49 44	3 22 21	59 52	4
27	1 32 5	27 14	2 50 4	50 18	3 22 33	59 56	3
28	1 35 9	28 10	2 51 59	50 52	3 22 42	59 58	2
29	1 38 17	29 5	2 53 49	51 25	3 22 48	59 59	1
30	1 41 22	30 0	2 55 38	51 57	3 22 50	60 0	0
	Sig. 11. *South Desc.* Sig. 5. *North Desc.*		Sig. 10. *South Desc.* Sig. 4. *North Desc.*		Sig. 9. *South Desc.* Sig. 3. *North Desc.*		

Argument of Latitude.

A TABLE of MERCURY's Mean Motion.

Anni Christ	Longit. ☿ S	o	'	Anom. ☿ S	o	'	Node ☿ S	o	'
1	10	11	53	3	17	14	11	29	48
101	0	26	18	5	28	49	0	2	28
201	3	10	43	8	10	23	0	5	8
301	5	25	8	10	21	58	0	7	48
401	8	9	33	1	3	33	0	10	28
501	10	23	58	3	15	7	0	13	8
601	1	8	23	5	26	41	0	15	49
701	3	22	49	8	8	17	0	18	29
801	6	7	14	10	19	52	0	21	9
901	8	21	39	1	1	26	0	23	49
1001	11	6	4	3	13	1	0	26	29
1101	1	20	29	5	24	36	0	29	9
1201	4	4	54	8	6	10	1	1	49
1301	6	19	19	10	17	45	1	4	29
1401	9	3	44	0	29	19	1	7	9
1501	11	18	9	3	10	54	1	9	49
1601	2	2	34	5	22	28	1	12	30
1701	4	16	59	8	4	2	1	15	10
1801	7	1	24	10	15	37	1	17	50
1901	9	15	49	0	27	12	1	20	30
2001	0	0	15	3	8	47	1	23	10

Mercury's *Mean Motion exceeding* 20 *Years.*

20	0	14	53	0	14	19	0	0	32
40	0	29	46	0	28	38	0	1	4
60	1	14	39	1	12	57	0	1	36
80	1	29	32	1	17	16	0	2	8
100	2	14	25	2	11	35	0	2	40
1000	0	24	11	11	25	47	0	26	41

Years.	Longit. ☿ S	o	'	Anom. ☿ S	o	'	Node ☿ S	o	'
1	1	23	43	1	23	42	0	0	2
2	3	17	27	3	17	24	0	0	3
3	5	11	10	5	11	5	0	0	5
B 4	7	8	59	7	8	53	0	0	6
5	9	2	42	9	2	33	0	0	8
6	10	26	25	10	26	15	0	0	10
7	0	20	8	0	19	56	0	0	11
B 8	2	17	57	2	17	43	0	0	14
9	4	11	40	4	11	25	0	0	14
10	6	5	24	6	5	7	0	0	16
11	7	29	7	7	28	48	0	0	18
B 12	9	26	56	9	26	36	0	0	19
13	11	20	39	11	20	17	0	0	21
14	1	14	22	1	13	58	0	0	22
15	3	8	6	3	7	39	0	0	24
B 16	5	5	54	5	5	27	0	0	26
17	6	29	38	6	29	9	0	0	27
18	8	23	21	8	22	50	0	0	29
19	10	17	4	10	16	32	0	0	30
B 20	0	14	53	0	14	19	0	0	32

Years from 1690.

1690	8	13	46	0	1	9	1	14	52
1691	10	7	29	1	24	51	1	14	54
B1692	0	1	13	3	18	33	1	14	55
1693	1	29	1	5	16	19	1	14	57
1694	3	22	45	7	10	1	1	14	58
1695	5	16	28	9	3	42	1	15	0
B1696	7	10	11	10	27	24	1	15	2
1697	9	8	0	0	25	11	1	15	3
1698	11	1	43	2	18	52	1	15	5

A TABLE of MERCURY's Mean Motion.

Years.	Longit. ☿			Anom. ☿			Node ☿		
	S	o	'	S	o	'	S	o	'
1699	0	25	26	4	12	34	1	15	6
B1700	2	19	10	6	6	16	1	15	8
1701	4	16	59	8	4	2	1	15	10
1702	6	10	42	9	27	45	1	15	11
1703	8	4	25	11	21	26	1	15	13
B1704	9	28	8	1	15	7	1	15	14
1705	11	25	58	3	12	54	1	15	16
1706	1	29	40	5	6	36	1	15	18
1707	3	13	24	7	0	7	1	15	19
B1708	5	7	7	8	23	59	1	15	21
1709	7	4	56	10	21	47	1	15	22
1710	8	28	39	0	15	28	1	15	24
1711	10	22	22	2	9	10	1	15	26
B1712	0	16	6	4	2	52	1	15	27
1713	2	13	54	6	0	38	1	15	29
1714	4	7	38	7	24	20	1	15	30
1715	6	1	21	9	18	1	1	15	32
B1716	7	25	4	11	11	43	1	15	34
1717	9	22	53	1	9	30	1	15	35
1718	11	16	36	3	3	11	1	15	37
1719	1	10	19	4	26	53	1	15	38
B1720	3	4	3	6	20	35	1	15	40
1721	5	1	51	8	18	21	1	15	42
1722	6	25	31	10	12	4	1	15	43
1723	8	19	18	0	5	45	1	15	45
B1724	10	13	1	1	29	16	1	15	46
1725	0	10	51	3	27	13	1	15	48
1726	2	4	33	5	20	55	1	15	50
1727	3	28	17	7	14	26	1	15	51
B1728	5	22	0	9	8	18	1	15	53

Years.	Longit. ☿			Anom. ☿			Node. ☿		
	S	o	'	S	o	'	S	o	'
1729	6	19	49	11	6	5	1	16	55
1730	9	13	32	0	29	46	1	16	56
1731	11	7	15	2	23	28	1	16	58
B1732	1	0	59	4	17	10	1	16	59
1733	2	28	47	6	14	57	1	16	1
1734	4	26	31	8	8	39	1	16	2
1735	6	16	14	10	2	20	1	15	4
B1736	8	9	57	11	26	2	1	16	6
1737	10	7	46	1	23	49	1	16	7
1738	0	1	29	3	17	30	1	16	9
1739	1	25	12	5	11	12	1	16	10
B1740	3	18	56	7	4	54	1	16	12
1741	5	16	45	9	2	40	1	16	14
1742	7	10	28	10	26	22	1	16	15
1743	9	4	11	0	20	4	1	16	17
B1744	10	27	54	2	13	45	1	16	18
1745	0	25	44	4	11	32	1	16	20
1746	2	19	26	6	5	14	1	16	22
1747	4	13	10	7	28	45	1	16	23
B1748	6	6	53	9	22	36	1	16	25
1749	8	4	42	11	20	24	1	16	26
1750	9	28	25	1	14	5	1	16	28
1751	11	22	9	3	7	47	1	16	30
B1752	1	15	52	5	1	29	1	16	31
1753	3	13	40	6	29	15	1	16	33
1754	5	7	24	8	22	57	1	16	34
1755	7	1	7	10	16	38	1	16	36
B1756	8	24	50	0	10	20	1	16	38
1757	10	22	39	2	8	7	1	16	39
1758	0	16	22	4	1	48	1	16	41

A TABLE of MERCURY's Mean Motion.

Years.	Longit. ☿			Anom. ☿			Node ☿		
	S	o	'	S	o	'	S	o	'
1759	2	10	5	5	25	30	1	16	42
B1760	4	3	49	7	19	12	1	16	44
1761	6	1	38	9	16	59	1	16	46
1762	7	25	21	11	10	42	1	16	47
1763	9	19	4	1	4	23	1	16	49
B1764	11	12	47	2	28	4	1	16	50
1765	1	10	37	4	25	51	1	16	52
1766	3	4	19	6	19	33	1	16	54
1767	4	28	3	8	13	14	1	16	56
B1768	6	21	46	10	6	56	1	16	57
1769	8	19	35	0	4	43	1	16	58
1770	10	13	18	1	28	24	1	17	0
1771	0	7	1	3	22	6	1	17	2
B1772	2	0	45	5	15	48	1	17	3
1773	3	28	33	7	13	35	1	17	5
1774	5	22	17	9	17	17	1	17	6
1775	7	16	0	11	0	58	1	17	8
B1776	9	9	43	0	24	40	1	17	10
1777	11	7	32	2	22	27	1	17	11
1778	1	1	15	4	16	8	1	17	13
1779	2	24	58	6	9	50	1	17	14
B1780	4	18	42	8	3	32	1	17	16
1781	6	16	31	10	1	18	1	17	18
1782	8	10	14	11	25	1	1	17	19
1783	10	3	57	1	19	12	1	17	21
B1784	11	27	40	3	12	23	1	17	22
1785	1	25	30	5	10	10	1	17	24
1786	3	19	12	7	3	52	1	17	26
1787	5	12	56	8	27	23	1	17	27
B1788	7	6	39	10	21	15	1	17	29

Years.	Longit. ☿			Anom. ☿			Node. ☿		
	S	o	'	S	o	'	S	o	'
1789	9	4	28	0	19	3	1	17	30
1790	10	28	11	2	12	44	1	17	32
1791	0	21	54	4	5	26	1	17	34
B1792	2	5	38	6	0	8	1	17	35
1793	4	13	26	7	27	54	1	17	37
1794	6	7	10	9	21	36	1	17	38
1795	8	0	53	11	15	17	1	17	40
B1796	9	24	36	1	8	59	1	17	42
1797	11	22	25	3	6	46	1	17	43
1798	1	16	8	5	0	27	1	17	45
1799	3	9	51	6	24	9	1	17	47
B1800	5	3	35	8	17	51	1	17	48
1801	7	1	24	10	15	37	1	17	50
1802	8	25	7	0	9	20	1	17	51
1803	10	18	50	2	3	1	1	17	53
B1804	0	12	33	3	26	42	1	17	54
1805	2	10	23	5	24	29	1	17	56
1806	4	4	5	7	18	11	1	17	58
1807	5	25	49	9	11	42	1	17	59
B1808	7	21	32	11	5	34	1	18	1
1809	9	19	21	1	3	22	1	18	2
1810	11	13	4	2	27	3	1	18	4
1811	1	6	47	4	20	45	1	18	6
B1812	3	0	31	6	14	27	1	18	7
1813	4	28	19	8	12	13	1	18	9
1814	6	22	3	10	5	55	1	18	10
1815	8	15	46	11	29	36	1	18	12
B1816	10	9	29	1	23	18	1	18	14
1817	0	7	18	3	21	5	1	18	15
1818	2	1	2	5	14	46	1	18	17

A TABLE of MERCURY's Mean Motion.

Com. Years.	JANUARY. Longit. ☿			JANUARY. Longit.			FEBRUARY. Anom. ☿			FEBRUARY. Anom. ☿			MARCH. Longit. ☿			MARCH. Anom. ☿			Bissextile.
	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	S	°	′	
1	0	4	6	0	4	6	4	10	58	4	10	58	8	5	33	8	5	33	0
2	0	8	11	0	8	11	4	15	3	4	15	3	8	9	38	8	9	38	1
3	0	12	17	0	12	17	4	19	9	4	19	9	8	12	44	8	12	44	2
4	0	16	22	0	16	22	4	23	14	4	23	14	8	17	49	8	17	49	3
5	0	20	28	0	20	28	4	27	20	4	27	20	8	21	55	8	21	55	4
6	0	24	33	0	24	33	5	1	25	5	1	25	8	26	0	8	26	0	5
7	0	28	39	0	28	39	5	5	31	5	5	31	9	0	6	9	0	6	6
8	1	2	44	1	2	44	5	9	36	5	9	36	9	4	11	9	4	11	7
9	1	6	50	1	6	50	5	13	42	5	13	42	9	8	17	9	8	17	8
10	1	10	55	1	10	55	5	17	47	5	17	47	9	12	22	9	12	22	9
11	1	15	1	1	15	1	5	21	53	5	21	53	9	16	28	9	16	28	10
12	1	19	7	1	19	7	5	25	59	5	25	59	9	20	34	9	20	34	11
13	1	23	12	1	23	12	6	0	4	6	0	4	9	24	39	9	24	39	12
14	1	27	18	1	27	18	6	4	10	6	4	10	9	28	54	9	28	54	13
15	2	1	23	2	1	23	6	8	15	6	8	15	10	2	50	10	2	50	14
16	2	5	29	2	5	29	6	12	21	6	12	21	10	6	56	10	6	56	15
17	2	9	34	2	9	34	6	16	26	6	16	26	10	11	1	10	11	1	16
18	2	13	40	2	13	40	6	20	32	6	20	32	10	15	7	10	15	7	17
19	2	17	45	2	17	45	6	24	37	6	24	37	10	19	12	10	19	12	18
20	2	21	51	2	21	51	6	28	43	6	28	43	10	23	18	10	23	18	19
21	2	25	56	2	25	56	7	2	48	7	2	48	10	27	23	10	27	23	20
22	3	0	2	3	0	2	7	6	54	7	6	54	11	1	29	11	1	29	21
23	3	4	7	3	4	7	7	10	59	7	10	59	11	5	34	11	5	34	22
24	3	8	13	3	8	13	7	15	5	7	15	5	11	9	40	11	9	40	23
25	3	12	19	3	12	19	7	19	11	7	19	11	11	13	46	11	13	46	24
26	3	16	24	3	16	24	7	23	16	7	23	16	11	17	51	11	17	51	25
27	3	20	30	3	20	30	7	27	2	7	27	2	11	21	57	11	21	57	26
28	3	24	35	3	24	35	8	1	27	8	1	27	11	26	2	11	26	2	27
29	3	28	41	3	28	41	8	5	33	8	5	33	0	0	8	0	0	8	28
30	4	2	46	4	2	46	0	0	0	0	0	0	0	4	13	0	4	13	29
31	4	6	52	4	6	52	0	0	0	0	0	0	0	8	19	0	8	19	30

A TABLE of MERCURY's Mean Motion.

Com. Years	APRIL. Longit. ☿ S ° '	APRIL. Anom. ☿ S ° '	MAY. Longit. ☿ S ° '	MAY. Anom. ☿ S ° '	JUNE. Longit. ☿ S ° '	JUNE. Anom. ☿ S ° '	Biſſextile.
1	0 12 25	0 12 25	4 15 11	4 15 11	8 22 3	8 22 3	0
2	0 16 30	0 16 30	4 19 16	4 19 16	8 26 8	8 26 8	1
3	0 20 36	0 20 36	4 23 22	4 23 22	9 0 14	9 0 14	2
4	0 24 41	0 24 41	4 27 27	4 27 27	9 4 19	9 4 19	3
5	0 28 47	0 28 47	5 1 33	5 1 33	9 8 25	9 8 25	4
6	1 2 52	1 2 52	5 5 38	5 5 38	9 12 30	9 12 30	5
7	1 6 58	1 6 58	5 9 44	5 9 44	9 16 36	9 16 36	6
8	1 11 3	1 11 3	5 13 49	5 13 49	9 20 41	9 20 41	7
9	1 15 9	1 15 9	5 17 55	5 17 55	9 24 47	9 24 47	8
10	1 19 14	1 19 14	5 22 0	5 22 0	9 28 52	9 28 52	9
11	1 23 20	1 23 20	5 26 6	5 26 6	10 2 58	10 2 58	10
12	1 27 26	1 27 26	6 0 12	6 0 12	10 7 4	10 4 4	11
13	2 1 31	2 1 31	6 4 17	6 4 17	10 11 9	10 11 9	12
14	2 5 37	2 5 37	6 8 23	6 8 23	10 15 15	10 15 15	13
15	2 9 42	2 9 42	6 12 28	6 12 28	10 19 20	10 19 20	14
16	2 13 48	2 13 48	6 16 4	6 16 4	10 23 26	10 23 26	15
17	2 17 53	2 17 53	6 20 39	6 20 39	10 27 31	10 27 30	16
18	2 21 59	2 21 59	6 24 45	6 24 45	11 1 37	11 1 36	17
19	2 26 4	2 26 4	6 28 50	6 28 50	11 5 42	11 5 41	18
20	3 0 10	3 0 10	7 2 56	7 2 56	11 9 48	11 9 47	19
21	3 4 15	3 4 15	7 7 1	7 7 1	11 13 53	11 13 52	20
22	3 8 21	3 8 21	7 11 7	7 11 7	11 17 59	11 17 58	21
23	3 12 26	3 12 26	7 15 12	7 15 12	11 22 4	11 22 3	22
24	3 16 32	3 16 32	7 19 18	7 19 18	11 26 10	11 26 9	23
25	3 20 38	3 20 38	7 23 24	7 23 24	0 0 16	0 0 15	24
26	3 24 43	3 24 43	7 27 29	7 27 29	0 4 21	0 4 20	25
27	3 28 49	3 28 49	8 1 35	8 1 35	0 8 27	0 8 26	26
28	4 2 54	4 2 54	8 5 40	8 5 40	0 12 32	0 12 31	27
29	4 7 0	4 7 0	8 9 45	8 9 45	0 16 38	0 16 37	28
30	4 11 5	4 11 5	8 13 51	8 13 51	0 20 42	0 20 42	29
31	4 15 11	4 15 11	8 17 57	8 17 57	0 24 49	0 24 48	30

In former page, Read Jan. *and* Feb. *Long. Anom. Long. Anom.*

A TABLE of MERCURY's Mean Motion.

Com. Years	JULY. Longit. ☿	JULY. Anom. ☿	AUGUST. Longit. ☿	AUGUST. Anom. ☿	SEPTEMB. Longit. ☿	SEPTEMB. Anom. ☿	Bissextile.
	S ° '	S ° '	S ° '	S ° '	S ° '	S ° '	
1	0 24 49	0 24 48	5 1 41	5 1 40	9 8 33	9 8 32	0
2	0 28 54	0 28 53	5 5 46	5 5 45	9 12 38	9 12 37	1
3	1 3 0	1 2 59	5 9 52	5 9 51	9 16 44	9 16 43	2
4	1 7 5	1 7 4	5 13 57	5 13 56	9 20 49	9 20 48	3
5	1 11 11	1 11 10	5 18 3	5 18 2	9 24 55	9 24 54	4
6	1 15 16	1 15 15	5 22 8	5 22 7	9 29 0	9 28 59	5
7	1 19 22	1 19 21	5 26 14	5 26 13	10 3 6	10 3 5	6
8	1 23 27	1 23 26	6 0 19	6 0 18	10 7 11	10 7 10	7
9	1 27 33	1 27 32	6 4 25	6 4 24	10 11 17	10 11 16	8
10	2 1 38	2 1 37	6 8 30	6 8 29	10 15 22	10 15 21	9
11	2 5 44	2 5 43	6 12 36	6 12 35	10 19 28	10 19 27	10
12	2 9 50	2 9 49	6 16 42	6 16 41	10 23 34	10 23 33	11
13	2 13 55	2 13 54	6 20 47	6 20 46	10 27 39	10 27 38	12
14	2 18 1	2 18 0	6 24 53	6 24 52	11 1 45	10 1 44	13
15	2 22 6	2 22 5	6 28 58	6 28 57	11 5 50	10 5 49	14
16	2 26 12	2 26 11	7 7 4	7 7 3	11 9 56	11 9 55	15
17	3 0 17	3 0 16	7 3 9	7 3 8	11 14 1	11 14 0	16
18	3 4 23	3 4 22	7 11 15	7 11 14	11 18 7	11 18 6	17
19	3 8 28	3 8 27	7 15 19	7 15 20	11 22 12	11 22 11	18
20	3 12 34	3 12 33	7 19 25	7 19 26	11 26 18	11 26 17	19
21	3 16 37	3 16 36	7 23 30	7 23 31	0 0 23	0 0 22	20
22	3 20 45	3 20 44	7 27 37	7 27 36	0 4 29	0 4 28	21
23	3 24 50	3 24 49	8 1 42	8 1 41	0 8 34	0 8 33	22
24	3 28 56	3 28 55	8 5 48	8 5 47	0 12 40	0 12 39	23
25	4 3 2	4 3 1	8 9 54	8 9 53	0 16 46	0 16 45	24
26	4 7 7	4 7 6	8 13 59	8 13 58	0 20 51	0 20 50	25
27	4 11 13	4 11 12	8 17 5	8 17 4	0 24 57	0 24 56	26
28	4 15 18	4 15 17	8 22 10	8 22 9	0 29 2	0 29 1	27
29	4 19 24	4 19 23	8 26 16	8 26 15	1 3 8	1 3 7	28
30	4 23 29	4 23 28	9 0 21	9 0 20	1 7 13	1 7 12	29
31	4 27 35	4 27 34	9 4 27	9 4 26	1 11 19	1 11 18	30

A TABLE of MERCURY's Mean Motion.

Com. Years	OCTOBER. Longit. ☿			OCTOBER. Anom. ☿			NOVEMB. Longit. ☿			NOVEMB. Anom. ☿			DECEMB. Longit. ☿			DECEMB. Anom. ☿			Bissextile.
	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	S	o	'	
1	1	11	19	1	11	18	5	18	11	5	18	10	9	20	57	9	20	56	0
2	1	15	24	1	15	23	5	22	16	5	22	15	9	25	2	9	25	1	1
3	1	19	30	1	19	29	5	26	22	5	26	21	9	29	8	9	29	7	2
4	1	23	35	1	23	34	6	0	27	6	0	26	10	3	13	10	3	12	3
5	1	27	41	1	27	40	6	4	33	6	4	32	10	7	19	10	7	18	4
6	2	1	46	2	1	45	6	8	38	6	8	37	10	10	24	10	10	23	5
7	2	5	52	2	5	51	6	12	44	6	12	43	10	15	30	10	15	29	6
8	2	9	57	2	9	56	6	16	49	6	16	48	10	19	35	10	19	34	7
9	2	14	3	2	14	2	6	20	55	6	20	54	10	23	41	10	23	40	8
10	2	18	8	2	18	7	6	25	0	6	25	7	10	27	46	10	27	45	9
11	2	22	14	2	22	13	6	29	6	6	29	5	11	1	52	11	1	50	10
12	2	26	20	2	26	19	7	3	12	7	3	11	11	5	58	11	5	56	11
13	3	0	25	3	0	24	7	7	17	7	7	16	11	10	3	11	10	1	12
14	3	4	31	3	4	30	7	11	23	7	11	22	11	14	9	11	14	7	13
15	3	8	36	3	8	35	7	15	28	7	15	27	11	18	14	11	18	12	14
16	3	12	42	3	12	41	7	19	34	7	19	33	11	22	20	11	22	18	15
17	3	16	47	3	16	46	7	23	39	7	23	38	11	26	25	11	26	23	16
18	3	20	53	3	20	52	7	27	45	7	27	44	0	0	31	0	0	29	17
19	3	24	58	3	24	57	8	1	50	8	1	49	0	4	36	0	4	34	18
20	3	29	4	3	29	3	8	5	56	8	5	55	0	8	42	0	8	40	19
21	4	3	9	4	3	8	8	10	1	8	10	0	0	12	47	0	12	45	20
22	4	7	15	4	7	14	8	14	7	8	14	6	0	16	53	0	16	51	21
23	4	11	20	4	11	19	8	18	12	8	18	11	0	20	58	0	20	56	22
24	4	15	26	4	15	25	8	22	18	8	22	17	0	25	4	0	25	2	23
25	4	19	32	4	19	31	8	26	24	8	26	23	0	29	10	0	29	8	24
26	4	23	37	4	23	36	9	0	29	9	0	28	1	3	15	1	3	13	25
27	4	27	43	4	27	42	9	4	35	9	4	34	1	7	21	1	7	19	26
28	5	1	48	5	1	47	9	8	40	9	8	39	1	11	26	1	11	24	27
29	5	5	54	5	5	53	9	12	45	9	12	44	1	15	32	1	15	30	28
30	5	9	59	5	9	58	9	16	51	9	16	50	1	19	37	1	19	35	29
31	5	14	5	5	14	4	9	20	57	9	20	56	1	23	43	1	23	41	30

A TABLE of MERCURY's Mean Motion, in Hours, Minutes, and Seconds.

H.	Longit. ☿			Anom. ☿			H.	Longit. ☿			Anom. ☿		
′	°	′	″	°	′	″	′	°	′	″	°	′	″
1	0	10	14	0	10	14	31	5	17	9	5	17	9
2	0	20	28	0	20	28	32	5	27	22	5	27	22
3	0	30	42	0	30	42	33	5	37	56	5	37	36
4	0	40	56	0	40	56	34	5	47	50	5	47	50
5	0	51	9	0	51	9	35	5	58	4	5	58	4
6	1	1	23	1	1	23	36	6	8	18	6	8	18
7	1	11	37	1	11	37	37	6	18	32	6	18	32
8	1	21	51	1	21	51	38	6	28	46	6	28	46
9	1	31	5	1	31	5	39	6	39	0	6	39	0
10	1	42	19	1	42	19	40	6	49	14	6	49	14
11	1	52	32	1	52	32	41	6	59	28	6	59	20
12	2	2	46	2	2	46	42	7	9	42	7	9	42
13	2	13	0	2	13	0	43	7	19	56	7	19	56
14	2	23	14	2	23	14	44	7	30	8	7	30	8
15	2	33	28	2	33	28	45	7	40	22	7	40	22
16	2	43	41	2	43	41	46	7	50	36	7	50	36
17	2	55	55	2	55	55	47	8	0	50	8	0	50
18	3	4	9	3	4	9	48	8	11	4	8	11	4
19	3	14	23	3	14	23	49	8	21	18	8	21	18
20	3	24	37	3	24	37	50	8	31	32	8	31	32
21	3	34	51	3	34	51	51	8	41	46	8	41	46
22	3	45	4	3	45	4	52	8	52	0	8	52	0
23	3	55	18	3	55	18	53	9	2	14	9	2	14
24	4	5	32	4	5	32	54	9	12	28	9	12	28
25	4	15	46	4	15	46	55	9	22	44	9	22	44
26	4	26	0	4	26	0	56	9	32	56	9	32	56
27	4	36	14	4	36	14	57	9	43	10	9	43	10
28	4	46	28	4	46	28	58	9	53	24	9	53	24
29	4	56	42	4	56	42	59	10	3	38	10	3	38
30	5	6	56	5	6	56	60	10	13	52	10	13	52
″	′	iv	v	″	iv	v	″′	″′	iv	v	″′	iv	v

A TABLE of MERCURY's Æquation.

Degrees.	Sig. 0. Equa. Sub.	Logar. Dist. à ⊙ Curt.	Sig. 1. Equa. Sub.	Logar. Dist. à ⊙ Curt.	Sig. 2. Equa. Sub.	Logar. Dist. à ⊙ Curt.	Degrees.
	o ' "		o ' "		o ' "		
0	0 0 0	466948	9 42 58	466144	17 57 28	463896	30
1	0 19 54	466943	10 1 22	466093	18 11 22	463795	29
2	0 39 48	466937	10 19 40	466041	18 25 3	463694	28
3	0 59 42	466929	10 37 52	465987	18 38 31	463591	27
4	1 19 36	466921	10 55 57	465930	18 52 47	463485	26
5	1 39 29	466911	11 13 56	465872	19 4 50	463378	25
6	1 59 19	466900	11 31 49	465812	19 41 70	463270	24
7	2 19 11	466886	11 49 34	465750	19 30 15	463159	23
8	2 39 1	466871	12 7 12	465687	19 42 36	463048	22
9	2 58 50	466855	12 24 42	465623	19 54 43	462935	21
10	3 18 38	466836	12 42 5	465557	20 6 35	462819	20
11	3 38 54	466816	12 59 20	465490	20 18 12	462703	19
12	3 57 36	466793	13 16 26	465422	20 29 35	462585	18
13	4 17 48	466771	13 33 24	465350	20 40 41	462495	17
14	4 37 25	466747	13 50 14	465277	20 51 36	462345	16
15	4 56 59	466722	14 6 56	465204	21 2 14	462223	15
16	5 16 28	466694	14 23 29	465128	21 12 35	462098	14
17	5 25 59	466665	14 39 52	465051	21 22 39	461972	13
18	5 55 25	466625	14 56 6	464972	21 32 28	461844	12
19	6 14 47	466602	15 12 1	464891	21 42 0	461713	11
20	6 34 5	466569	15 28 5	464809	21 51 14	461582	10
21	6 53 19	466534	15 43 50	464725	22 0 12	461450	9
22	7 12 28	466497	15 59 24	464639	22 9 5	461316	8
23	7 31 33	466459	16 14 47	464552	22 17 12	461179	7
24	7 50 34	466419	16 30 1	464464	22 25 15	461042	6
25	8 9 31	466377	16 45 5	464373	22 32 59	460903	5
26	8 28 23	466334	16 59 55	464281	22 40 24	460764	4
27	8 47 10	466289	17 14 35	464187	22 47 30	460623	3
28	9 5 52	466241	17 29 4	463091	22 54 16	460480	2
29	9 24 28	466193	17 43 22	463994	23 0 42	460338	1
30	9 42 58	466144	17 57 28	463896	23 6 48	460191	0
	Add.		Add.		Add.		
	Sig. 11.		Sig. 10.		Sig. 9.		

A TABLE of MERCURY's Æquation.

Degrees.	Sig. 3. Equa. Sub.	Logar. Dist. ☉ Curt.	Sig. 4. Equa. Sub.	Logar. Dist. ☉ Curt.	Sig. 5. Equa. Sub.	Logar. Dist. ☉ Curt.	Degrees.
	° ′ ″		° ′ ″		° ′ ″		
0	23 6 48	460191	23 6 45	455474	15 16 44	450656	30
1	23 12 33	460049	22 59 27	455305	14 52 3	450521	29
2	23 17 59	459907	22 51 35	455135	14 26 49	450389	28
3	23 23 5	459765	22 43 11	454966	14 1 4	450262	27
4	23 27 49	459620	22 34 14	454796	13 32 19	450138	26
5	23 32 12	459473	22 24 44	454626	13 7 59	450017	25
6	23 36 14	459326	22 14 0	454456	12 40 43	449901	24
7	23 39 54	459277	22 4 1	454286	12 12 57	449787	23
8	23 43 11	459027	21 52 47	454116	11 44 43	449676	22
9	23 46 5	458876	21 39 58	453948	11 16 4	449571	21
10	23 48 36	458724	21 27 49	453770	10 46 55	449469	20
11	23 50 44	458571	21 15 41	453611	10 17 26	449371	19
12	23 52 29	458317	21 2 10	453444	9 47 23	449278	18
13	23 53 50	458261	20 48 1	453276	9 17 1	449188	17
14	23 54 47	458103	20 33 15	453110	8 46 19	449104	16
15	23 55 19	457944	20 17 56	452946	8 15 14	449025	15
16	23 55 23	457785	20 2 1	452781	7 43 17	448950	14
17	23 55 2	457624	19 45 27	452618	7 12 1	448880	13
18	23 54 13	457463	19 28 20	452456	6 39 58	448816	12
19	23 52 54	457304	19 10 36	452295	6 7 38	448752	11
20	23 51 13	457149	18 52 17	452135	5 35 3	448702	10
21	23 49 0	456976	18 33 21	451978	5 2 14	448654	9
22	23 46 19	456811	18 13 50	451822	4 29 11	448610	8
23	23 43 51	456646	17 53 44	451668	3 55 50	448572	7
24	23 39 29	456481	17 33 2	451517	3 22 31	448540	6
25	23 35 19	456314	17 11 45	451367	2 48 58	448513	5
26	23 30 38	456147	16 49 52	451219	2 15 21	448491	4
27	23 24 26	455980	16 27 29	451075	1 41 37	448474	3
28	23 19 44	455811	16 4 28	450933	1 7 48	448464	2
29	23 13 30	455642	15 40 54	450800	0 33 55	448458	1
30	23 6 45	455474	15 16 44	450656	0 0 0	448454	0
	Add.		Add.		Add.		
	Sig. 8.		Sig. 7.		Sig. 6.		

A TABLE of MERCURY's Inclination from the Plan of the Ecliptic, with the Proportional Scruples of Latitude.

Argument of Latitude.

Degrees.	Sig. 0. *North Asc.* Sig. 6. *South Asc.* Inclinat.	P. Scr.	Sig. 1. *North Asc.* Sig. 7. *South Asc.* Inclinat.	P. Scr.	Sig. 2. *North Asc.* Sig. 8. *South Asc.* Inclinat.	P. Scr	Degrees.
	° ′ ″	′ ″	° ′ ″	′ ″	° ′ ″	′ ″	
0	0 0 0	0 0	3 27 0	30 0	5 58 32	51 57	30
1	0 7 13	1 3	3 33 13	30 54	6 2 6	52 28	29
2	0 14 27	2 5	3 39 22	31 48	6 5 33	52 58	28
3	0 21 40	3 8	3 45 28	32 41	6 8 53	53 27	27
4	0 28 53	4 11	3 51 30	33 33	6 12 6	53 56	26
5	0 36 5	5 14	3 57 28	34 25	6 15 13	54 23	25
6	0 43 16	6 17	4 3 21	35 16	6 18 13	54 49	24
7	0 59 26	7 19	4 9 9	36 6	6 21 6	55 14	23
8	0 57 36	8 21	4 14 59	36 56	6 23 51	55 38	22
9	1 4 45	9 23	4 29 32	37 45	6 26 29	56 1	21
10	1 11 53	10 25	4 26 6	38 34	6 29 0	56 23	20
11	1 18 59	11 27	4 31 36	39 22	6 31 24	56 44	19
12	1 26 4	12 29	4 37 0	40 9	6 33 42	57 4	18
13	1 33 7	13 30	4 42 20	40 55	6 35 53	57 23	17
14	1 40 8	14 31	4 47 35	41 40	6 37 57	57 40	16
15	1 47 8	15 32	4 52 45	42 26	6 39 53	57 57	15
16	1 54 6	16 31	4 57 49	43 10	6 41 42	58 13	14
17	2 1 2	17 32	5 2 19	43 53	6 43 26	58 28	13
18	2 7 56	18 32	5 7 41	44 35	6 44 57	58 42	12
19	2 14 47	19 32	5 12 28	45 16	6 46 24	58 54	11
20	2 21 35	20 31	5 17 9	45 57	6 47 43	59 5	10
21	2 28 21	21 30	5 21 44	46 37	6 48 54	59 16	9
22	2 36 5	22 29	5 26 14	47 16	6 49 58	59 25	8
23	2 41 46	23 27	5 30 37	47 54	6 50 55	59 33	7
24	2 48 24	24 24	5 34 55	48 32	6 51 44	59 40	6
25	2 54 58	25 21	5 39 7	49 0	6 52 25	59 46	5
26	3 1 29	26 18	5 43 13	49 44	6 52 59	59 52	4
27	3 7 57	27 14	5 47 13	50 18	6 53 26	59 56	3
28	3 14 22	28 10	5 51 6	50 52	6 53 45	59 58	2
29	3 20 42	29 5	5 54 52	51 25	6 53 56	59 59	1
30	3 27 0	30 0	5 58 32	51 57	6 54 0	60 0	0
	Sig. 11. *South Desc.* Sig. 5. *North Desc.*		Sig. 10. *South Desc.* Sig. 4. *North Desc.*		Sig. 9. *South Desc.* Sig. 3. *North Desc.*		

Argument of Latitude.

A TABLE of the Refraction of the SUN, MOON, and STARS, with the Parallax of the SUN.

Dist. à Vert.	Refra.		Par. ⊙		Dist. à Vert.	Refra.		Par. ⊙		Dist. à Vert.	Refra.		Par. ⊙	
gr.	′	″	′	″	gr.	′	″	′	″	gr.	′	″	′	″
0	0	0	0	0	30	0	29	0	14	60	1	24	0	26
1	0	1	0	1	31	0	30	0	15	61	1	27	0	26
2	0	2	0	1	32	0	31	0	15	62	1	31	0	26
3	0	2	0	2	33	0	32	0	16	63	1	36	0	27
4	0	3	0	2	34	0	33	0	16	64	1	40	0	27
5	0	4	0	3	35	0	34	0	17	65	1	45	0	27
6	0	5	0	3	36	0	35	0	17	66	1	50	0	27
7	0	6	0	4	37	0	36	0	18	67	1	55	0	28
8	0	6	0	4	38	0	37	0	18	68	2	1	0	28
9	0	7	0	5	39	0	39	0	19	69	2	7	0	28
10	0	8	0	5	40	0	41	0	19	70	2	14	0	28
11	0	9	0	6	41	0	42	0	20	71	2	22	0	28
12	0	10	0	6	42	0	44	0	20	72	2	31	0	28
13	0	11	0	7	43	0	46	0	21	73	2	40	0	28
14	0	12	0	7	44	0	47	0	21	74	2	50	0	29
15	0	13	0	8	45	0	49	0	21	75	3	3	0	29
16	0	14	0	8	46	0	51	0	22	76	3	16	0	29
17	0	15	0	9	47	0	53	0	22	77	3	32	0	29
18	0	16	0	9	48	0	55	0	22	78	3	48	0	29
19	0	17	0	10	49	0	57	0	23	79	4	9	0	29
20	0	18	0	10	50	0	59	0	23	80	4	35	0	29
21	0	19	0	10	51	1	0	0	23	81	5	5	0	29
22	0	20	0	11	52	1	2	0	24	82	5	42	0	30
23	0	21	0	11	53	1	5	0	24	83	6	30	0	30
24	0	22	0	12	54	1	8	0	24	84	7	32	0	30
25	0	23	0	12	55	1	10	0	25	85	8	55	0	30
26	0	24	0	13	56	1	12	0	25	86	10	53	0	30
27	0	26	0	13	57	1	15	0	25	87	13	55	0	30
28	0	27	0	14	58	1	18	0	26	88	18	24	0	30
29	0	28	0	14	59	1	21	0	26	89	25	12	0	30
30	0	29	0	14	60	1	24	0	26	90	30	0	0	30

A TABE of the Declination of the Ecliptic, and Meridian Angles

Degrees.	♈ ♓ Declinat.			M.An.		♉ ♒ Declinat.			M.An.		♊ ♑ Declinat.			M.An.		Degrees.
	o	'	"	o	'	o	'	"	o	'	o	'	"	o	'	
0	0	0	0	66	29	11	29	57	69	20	20	11	52	77	42	30
1	0	23	54	66	29	11	51	1	69	31	20	24	25	78	4	29
2	0	47	50	66	30	12	11	52	69	43	20	36	36	78	26	28
3	1	11	44	66	31	12	32	31	69	55	20	48	23	78	48	27
4	1	35	37	66	31	12	52	58	70	8	20	59	49	79	11	26
5	1	59	29	66	31	13	13	12	70	21	21	10	51	79	34	25
6	2	23	20	66	35	13	33	13	70	35	21	21	28	79	57	24
7	2	47	5	66	38	13	53	1	70	49	21	31	41	80	20	23
8	3	10	52	66	41	14	12	35	71	3	21	41	33	80	43	22
9	3	34	33	66	44	14	31	54	71	18	21	50	58	81	7	21
10	3	58	13	66	47	14	50	59	71	13	22	0	0	81	31	20
11	4	21	47	66	51	15	9	48	71	48	22	8	35	81	55	19
12	4	45	19	66	55	15	28	23	72	4	22	16	47	82	19	18
13	5	8	45	67	0	15	46	42	72	20	22	24	32	82	44	17
14	5	32	8	67	5	16	4	45	72	36	22	31	53	83	9	16
15	5	55	24	67	11	16	22	31	72	53	22	38	46	83	34	15
16	6	18	34	67	17	16	40	10	73	10	22	45	16	83	59	14
17	6	41	40	67	24	16	57	11	73	27	22	51	17	84	24	13
18	7	4	39	67	31	17	14	6	73	45	22	56	54	84	50	12
19	7	27	31	67	38	17	30	40	74	3	23	2	4	85	15	11
20	7	50	16	67	45	17	46	59	74	21	23	6	47	85	41	10
21	8	12	54	67	53	18	2	57	74	40	23	11	3	83	6	9
22	8	35	25	68	1	18	18	39	74	59	23	14	53	83	32	8
23	8	57	45	68	9	18	33	58	75	18	23	18	15	83	58	7
24	9	19	58	68	18	18	49	0	75	38	23	21	12	87	24	6
25	9	42	3	68	28	19	3	41	75	58	23	23	40	87	50	5
26	10	3	59	68	38	19	18	2	76	18	23	25	42	88	16	4
27	10	25	43	68	48	19	32	1	76	39	23	27	16	88	42	3
28	10	47	20	68	58	19	45	40	77	0	23	28	23	89	8	2
29	11	8	43	69	9	19	58	57	77	21	23	29	3	89	34	1
30	11	29	57	69	20	20	11	52	77	42	23	29	15	90	0	0
	♓			♍		♒			♎		♑			♋		

A TABLE of Right Ascensions.

Index.	♈	♉	♊	♋	♌	♍
	o ′	o ′	o ′	o ′	o ′	o ′
0	0 0	27 54	57 48	90 0	122 12	152 6
1	0 55	28 51	58 51	91 5	123 14	153 4
2	1 50	29 49	59 53	92 11	124 16	154 1
3	2 45	30 46	60 56	93 16	125 19	154 58
4	3 40	31 44	61 59	94 22	126 20	155 55
5	4 35	32 42	63 3	95 27	127 22	156 51
6	5 30	33 40	64 6	96 32	128 24	157 48
7	6 25	34 38	65 9	97 38	129 25	158 44
8	7 21	35 37	66 13	98 43	130 26	159 40
9	8 16	36 36	67 17	99 48	131 27	160 37
10	9 11	37 34	68 21	100 53	132 28	161 33
11	10 6	38 33	69 25	101 58	133 28	162 29
12	11 2	39 33	70 29	103 3	134 29	163 25
13	11 57	40 32	71 34	104 8	135 29	164 20
14	12 53	41 31	72 38	105 13	136 29	165 16
15	13 48	42 31	73 43	106 17	137 29	166 12
16	14 44	43 31	74 47	107 22	138 28	167 7
17	15 40	44 31	75 52	108 26	139 28	168 3
18	16 35	45 31	76 57	109 31	140 27	168 58
19	17 31	46 32	78 2	110 35	141 27	169 54
20	18 27	47 32	79 7	111 39	142 26	170 49
21	19 23	48 33	80 12	112 43	143 24	171 44
22	20 20	49 34	81 17	113 47	144 23	172 39
23	21 16	50 35	82 22	114 51	145 22	173 35
24	22 12	51 36	83 28	115 54	146 20	174 30
25	23 9	52 38	84 33	116 57	147 18	175 25
26	24 6	53 40	85 38	118 1	148 16	176 20
27	25 2	54 42	86 44	119 4	149 14	177 15
28	25 59	55 44	87 49	120 7	150 11	178 10
29	26 57	56 46	88 55	121 9	151 9	179 5
30	27 54	57 48	90 0	122 12	152 6	180 0

A TABLE of Right Ascensions.

Index.	♎	♏	♐	♑	♒	♓
	° ′	° ′	° ′	° ′	° ′	° ′
0	180 0	207 54	237 48	270 0	302 12	332 6
1	180 55	208 51	238 51	271 5	303 14	333 4
2	181 50	209 49	239 53	272 11	304 16	334 1
3	182 45	210 46	240 56	273 16	305 19	334 58
4	183 40	211 44	241 59	274 22	306 20	335 55
5	184 35	212 42	243 3	275 27	307 22	336 51
6	185 30	213 40	244 6	276 32	308 24	337 48
7	186 25	214 48	245 9	277 38	309 25	338 44
8	187 27	215 37	246 13	278 43	310 26	339 40
9	188 16	216 36	247 17	279 48	311 27	340 37
10	189 11	217 34	248 21	280 53	312 28	341 33
11	190 6	218 33	249 25	281 58	313 28	342 29
12	191 2	219 33	250 29	283 3	314 29	343 25
13	191 57	220 32	251 34	284 8	315 29	344 20
14	192 53	221 31	252 38	285 13	316 29	345 16
15	193 48	222 31	253 43	286 17	317 29	346 12
16	194 44	223 31	254 47	287 22	318 29	347 7
17	195 40	224 31	255 52	288 26	319 28	348 3
18	196 35	225 31	256 57	289 31	320 28	348 58
19	197 31	226 32	258 2	290 35	321 27	349 54
20	198 27	227 32	259 7	291 39	322 26	350 49
21	199 23	228 33	260 12	292 43	323 24	351 44
22	200 20	229 34	261 17	293 47	324 23	352 39
23	201 16	330 35	262 22	294 51	325 22	353 35
24	202 12	231 36	263 28	295 54	326 20	354 30
25	203 9	232 38	264 33	296 57	327 18	335 25
26	204 6	233 40	265 38	298 1	328 16	356 20
27	205 2	234 41	266 44	299 4	329 14	357 15
28	205 59	235 43	267 49	300 7	330 11	358 10
29	206 57	236 46	268 50	301 9	331 9	359 5
30	207 54	237 48	270 0	302 12	332 6	360 0

A TABLE converting Hours and Min. into Degrees and Minutes of the Equator, and the contrary.

D.	Time.	D.	Time.	D.	Time.
0	H ′ ″	0	H ′ ″	0	H ′ ″
′	′ ″	′	′ ″	′	′ ″
″	″ ‴	″	″ ‴	″	″ ‴
1	0 4	31	2 4	70	4 40
2	0 8	32	2 8	80	5 20
3	0 12	33	2 12	90	6 0
4	0 16	34	2 16	100	6 40
5	0 20	35	2 20	110	7 20
6	0 24	36	2 24	120	8 0
7	0 28	37	2 28	130	8 40
8	0 32	38	2 32	140	9 20
9	0 36	39	2 36	150	10 0
10	0 40	40	2 40	160	10 40
11	0 44	41	2 44	170	11 20
12	0 48	42	2 48	180	12 0
13	0 52	43	2 52	190	12 40
14	0 56	44	2 56	200	13 20
15	1 0	45	3 0	210	14 0
16	1 4	46	3 4	220	14 40
17	1 8	47	3 8	230	15 20
18	1 12	48	3 12	240	16 0
19	1 16	49	3 16	250	16 40
20	1 20	50	3 20	260	17 20
21	1 24	51	3 24	270	18 0
22	1 28	52	3 28	280	18 40
23	1 32	53	3 32	290	19 20
24	1 36	54	3 36	300	20 0
25	1 40	55	3 40	301	20 40
26	1 44	56	3 44	302	21 20
27	1 48	57	3 48	303	22 0
28	1 52	58	3 52	304	22 40
29	1 56	59	3 56	305	23 20
30	2 0	60	4 0	306	24 0

A TABLE of the Æquation of Natural Days.

Degrees.	♈ ♎ Add.	♉ ♍ Add.	♊ ♐ Add.	Degrees.
	′ ° ″	′ ″	° ′ ″	
0	0 0 0	8 25	8 47	30
1	0 20	8 36	8 37	29
2	0 40	8 45	8 26	28
3	0 59	8 55	8 15	27
4	1 19	9 4	8 3	26
5	1 39	9 12	7 50	25
6	1 59	9 19	7 36	24
7	2 18	9 26	7 22	23
8	2 38	9 32	7 7	22
9	2 57	9 37	6 52	21
10	3 16	9 42	6 36	20
11	3 35	9 46	6 20	19
12	3 51	9 50	6 3	18
13	4 12	9 52	5 46	17
14	4 30	9 54	5 28	16
15	4 47	9 56	5 10	15
16	5 5	9 56	4 51	14
17	5 22	9 56	4 32	13
18	5 38	9 55	4 12	12
19	5 55	9 53	3 53	11
20	6 11	9 51	3 33	10
21	6 26	9 48	3 12	9
22	6 41	9 44	2 51	8
23	6 56	9 40	2 31	7
24	7 10	9 34	2 9	6
25	7 24	9 28	1 48	5
26	7 37	9 21	1 27	4
27	7 50	9 14	1 5	3
28	8 2	9 6	0 43	2
29	8 14	8 57	0 22	1
30	8 25	8 47	0 0	0
	Subſtr.	Subſtr.	Subſtr.	
	♓ ♍	♎ ♌	♑ ♋	

A CATALOGUE of several Fixed Stars of *Note*, according to the Observations of *Tycho Brahe*, and by him Rectified to the beginning of the *Year*, 1601.

Names of the Stars.	Longitude S. gr. ′	Latitude gr. ′		Mag.
SO. * R. Horn *Aries* call'd the 1st.	♈ 27 37	7 8	N	4
North following in same Horn.	♈ 28 23	8 29	N	4
Bright * in the Head of *Aries*.	♉ 2 6	9 57	N	3
Southern Jaw of *Aries*.	♉ 3 20	5 42	N	3
First of 3 in the tail of *Aries*.	♉ 15 15	1 46	N	4
Middle and Brightest of the *Pleiades*.	♉ 24 24	4 0	N	3
Nostril of *Taurus*.	♊ 0 12	5 46	S	3
North eye of *Taurus*.	♊ 2 53	2 36	S	3
South eye of *Taurus Aldebaran*.	♊ 4 12	5 31	S	1
End N. Horn ♉ or foot of *Auriga*.	♊ 16 59	5 20	N	2
Propus foremost in the foot of *Gemini*.	♊ 25 22	0 13	S	4
Hindmost Heel Higher Foot *Gemini*.	♊ 29 44	0 53	S	3
Bright Foot of *Gemini*.	♋ 3 31	6 48	S	2
Head of *Hercules Pollux*.	♋ 13 43	6 38	N	2
North *Assellus*.	♌ 1 57	3 8	N	4
South *Assellus*.	♌ 3 8	0 4	N	4
Heart of *Leo*.	♌ 24 17	0 26	N	1
Second in the left Wing of *Virgo*.	♍ 4 35	2 50	N	3
Spica Virginis Arista.	♎ 18 16	1 59	S	1
South Ballance.	♏ 9 31	0 26	N	2
Higher * in the Forehead of *Scorpio*.	♏ 27 36	1 5	N	2
Heart of *Scorpio Antares*.	♐ 4 13	4 27	S	1
Southmost N. part Bow of *Sagittary*.	♑ 0 47	2 0	S	3
Southern Horn of the Goat *Australis*.	♑ 28 31	4 41	N	3
Bright * Doubling tail of *Capricorn*.	♒ 16 14	2 26	S	3
Following * on the Goat's Back.	♒ 18 0	2 29	S	3
So. of 2 in hinder part of the Head.	♓ 15 50	7 17	N	4
In the Tail of *Pisces*.	♓ 27 2	6 23	N	5
Head of *Andromeda*.	♈ 8 47	25 42	N	2
Girdle of *Andromeda*.	♈ 24 49	25 59	N	2
In following N. Horn of *Aries*.	♈ 28 23	8 29	N	4
Bright * in the Chair *Cassiopeia*.	♈ 29 35	21 14	N	3
Breast of *Cassiopeia*—*Schedir*.	♉ 2 17	46 35	N	3
Left or South foot of the *Whale*.	♉ 8 39	27 46	N	2
Bright * in the Jaw of the *Whale*.	♉ 8 47	12 37	S	2
Left knee of *Cassiopeia*.	♉ 12 20	46 22	N	3
Head of *Algol*.	♉ 20 37	22 22	N	3
Bright * Right side of *Perseus*.	♉ 27 17	30 5	N	2
Left foot of *Orion*—*Rigel*.	♊ 11 17	31 11	S	1
Paunch or Belly of the *Hare*.	♊ 14 6	43 57	S	3
First * in the Belt of *Orion*.	♊ 17 50	23 38	S	2
Middlemost * in *Orion*'s belt.	♊ 17 54	24 33	S	2
Hindmost * in *Orion*'s belt.	♊ 19 6	25 21	S	2
Pole Star.	♊ 23 2	66 2	N	2
Right shoulder of *Orion*.	♊ 23 12	16 6	S	2

A CATALOGUE of Stars, &c.

Names of the Stars.	Longitude S.	gr.		Latitude gr.			Mag.
Right ſhoulder of *Auriga.*	♊	25	52	21	27	N	2
Great Dog *Sirius.*	♋	8	35	39	30	S	1
Higher head of *Gemini Caſtor Apollo.*	♋	14	41	10	2	N	2
Leſſer Dog *Procyon.*	♋	20	18	15	57	S	2
Breſt of the Crab *Precepe.*	♌	1	46	1	14	N	Neb.
Shoulder of great Bear 4th Wheel.	♌	9	34	49	40	N	2
Flank of the Bear 3d Wheel.	♌	13	43	45	3	N	2
Heart of *Hydra.*	♌	21	45	22	24	S	1
Northmoſt * in *Leo*'s Neck.	♌	21	57	11	50	N	3
Midmoſt * in *Leo*'s Neck.	♌	23	59	8	47	N	2
Left Thigh of the Bear 1ſt Wheel.	♌	25	25	51	37	N	2
Brighteſt * in *Leo*'s Back.	♍	5	41	14	20	N	2
Middle * Tail of *Helice*, 2d Horſe.	♍	9	56	56	22	N	2
Tail of *Leo.*	♍	16	3	12	18	N	1
Firſt Horſe of the Chariot Bear's tail.	♍	21	12	54	25	N	2
Right Wing of *Virgo Vindemiatrix.*	♎	4	23	16	15	N	3
Left Shoulder of *Bootes.*	♎	13	5	49	33	N	3
Arcturus in the Conſtellation *Bootes.*	♎	18	39	31	2	N	1
Bright * of the Crown *Lucida Corona.*	♏	6	38	44	23	N	2
Bright * of the North Ballance.	♏	13	48	8	35	N	2
Bright * middle of the Serpent's neck.	♏	16	30	25	35	N	2
Right Shoulder of *Hercules.*	♏	25	27	42	48	N	3
Left Hand of *Ophincus.*	♏	26	44	17	19	N	3
Knee of *Ophincus.*	♐	3	39	11	30	N	3
Left Shoulder of *Hercules.*	♐	9	10	47	47	N	3
Head of *Hercules.*	♐	10	31	37	23	N	3
Head of the Serpent of *Ophincus,*	♐	16	50	35	57	N	3
Right Shoulder of *Ophincus.*	♐	19	45	28	1	N	3
Head of the Dragon.	♐	22	24	75	3	N	3
Shining Harp.	♑	9	43	61	47	N	1
Tail of the Vulture.	♑	14	15	36	16	N	3
Mouth of the Swan.	♑	25	44	49	2	N	3
Eagle or flying Vulture.	♑	26	9	29	21	N	2
North Horn of the Goat.	♑	28	18	7	2	N	3
Pinion Right Wing of the Swan.	♒	10	53	64	28	N	3
Left Shoulder of *Aquarius.*	♒	17	51	8	42	N	3
Breaſt of the Swan.	♒	19	25	57	9	N	3
Lower Wing of the Swan.	♒	22	9	49	26	N	3
Mouth of *Pegaſus.*	♒	26	22	22	27	N	3
In the Mouth of the Fiſh *Fomahant.*	♒	28	11	21	0	S	1
Tail of the Swan.	♓	29	53	59	56	N	2
Wing of *Pegaſus Merchab.*	♓	17	56	19	26	N	2
Right Shoulder of *Pegaſus Scheat.*	♓	23	49	31	7	N	2
Southmoſt * of the Whale's tail.	♓	26	56	20	47	S	2

FINIS.

ADVERTISEMENT.

THE *Author* of this Impreſſion, thought fit to give Notice to all Perſons that ſhall have occaſion to make uſe of him, in any of the Particulars hereafter mention'd; That upon notice given him, they may have their deſire anſwered at a reaſonable Price.

Firſt, *Surveying* of Lands; Laying out and dividing of Incloſures, or any thing that belongs to the Art of *Surveying*.

Secondly, *Dialling*, whether Direct, Declining, Inclining, Reclining, Convex, or Reflex.

Thirdly, *Menſuration* of *Buildings*, either for Maſter or Workmen.

Fourthly, *Drawing* of Platforms or Draughts, (which is the Art of *Architecture*) for *Buildings*, with Directions for the carrying on thereof.

From *Pickworth Com. Rutland, Anno* 1700.

JOHN WING.

WING, Vincent R. John. p.v. 1 Geodaetes practicus redivivus: The art of surveying... much augmented and improved, with an appendix. With large folding plate, 5 full page, and numerous text illustrations. London: Matthews, 1700. [Bound with:] p.v. 2 Scientia Stellarum: or, the starry science. London: [Awnsham], 1699. $260.

Folio, cont. paneled calf, spine restored, gilt. [8], 384; 134, [1] pp. Neatly lettered ex libris of Robert Jones Collegio Jesu Cxon, dated March 9, 1700.

John Wing (fl. 1673-1715) succeeded his uncle, Vincent Wing, as a mathematician, land-surveyor and astrologer. This is his new edition of Vincent's handbook on surveying. It includes a description of the "Emperial Table," a new instrument for surveying designed by John Wing which, according to him, did all the work of the plain-table, theodolite, circumferentor, peractor, "chard" and needle. The Scientia Stellarum, Wing's manual of astrology, has a separate title page and is listed separately under Wing W2985. The first work is not listed in Wing but should follow W2992.

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